

Juniper Secure Analytics 3800 Hardware Guide

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Juniper Secure Analytics 3800 Hardware Guide
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About This Guide

Use this guide to install hardware and perform initial software configuration, routine maintenance, and troubleshooting for JSA3800.

After completing the installation and basic configuration procedures covered in this guide, refer to the JSA software documentation for information about further software configuration. See [Juniper Secure Analytics](#).

RELATED DOCUMENTATION

[Introducing JSA3800](#)

[JSA3800 Quick Start Guide](#)

[Release Notes](#)

[STRM Series to JSA Series Migration Guide](#)

[Juniper Secure Analytics Migration Guide](#)

1

CHAPTER

Overview

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JSA3800 System Overview

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JSA3800 Appliance Description

The Juniper Secure Analytics 3800 (JSA3800) is an enterprise-class appliance that provides a scalable network security management solution for medium-sized companies up to large global organizations.

The JSA3800 appliance is a 1-U, rack-mountable chassis with AC power supplies (or optional DC power supplies), six hot-swappable hard drives, 64 GB memory, and two 10 Gigabit and four Gigabit Ethernet interfaces.

The JSA3800 appliance:

- Responds to the right threats at the right time through effective analysis of networks, events, and audit log files.
- Identifies environmental anomalies in the network, an attack path, and the source of a threat.
- Provides network remediation for threat responses across all security products.

The JSA3800 appliance provides the following features:

- Monitor utility for power supply unit (PSU) and fans
- Add setup logs automatically
- Support high availability (HA)
- Hot-swappable hard disk supporting RAID
- Automatic RAID rebuild on HDD swap
- Support hot-swappable dual-AC (or optional dual-DC power supplies) with a redundant configuration in the chassis

The JSA appliances use the following drivers for security analysis of external and internal threats:

- Security Information Management (SIM)—SIM provides reporting and analysis of data from host systems, applications, and security devices to support security policy compliance management, internal threat management, and regulatory compliance initiatives.
- Security Event Management (SEM)—SEM improves security incident response capabilities by processing data from security devices and network devices. It helps network administrators to provide effective responses to external and internal threats.

SEE ALSO

[JSA3800 Appliance Front Panel Description | 4](#)

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JSA3800 Appliance Transceiver Interface

Table 1 on page 3 lists the transceivers supported on the JSA3800 appliance.

Table 1: JSA3800 Appliance Transceiver Interface Types

Transceiver Type	Card Model	Description
SFP+	UNIV-SFPP-DUAL-SR	Dual Rate 10GBASE-LR/1000BASE-LX
	UNIV-SFPP-DUAL-LR	Dual Rate 10GBASE-SR/1000BASE-SX

SEE ALSO

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Field-Replaceable Units on the JSA3800 Appliance

Field-replaceable units (FRUs) are hardware components that can be replaced at the customer site. Hot-swappable FRUs are the components that you can remove and replace without powering off the device or disrupting the functions of the device.

Hot-swappable FRUs supported by the JSA3800 appliance are hard drives and power supplies.

SEE ALSO

[Replacing AC Power Supply Cables on the JSA3800 Appliance | 44](#)

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[Replacing DC Power Supply Cables on the JSA3800 Appliance | 45](#)

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JSA3800 Appliance Front Panel Description

[Figure 1 on page 5](#) shows the front panel components of the JSA3800 appliance.

Figure 1: JSA3800 Front Panel

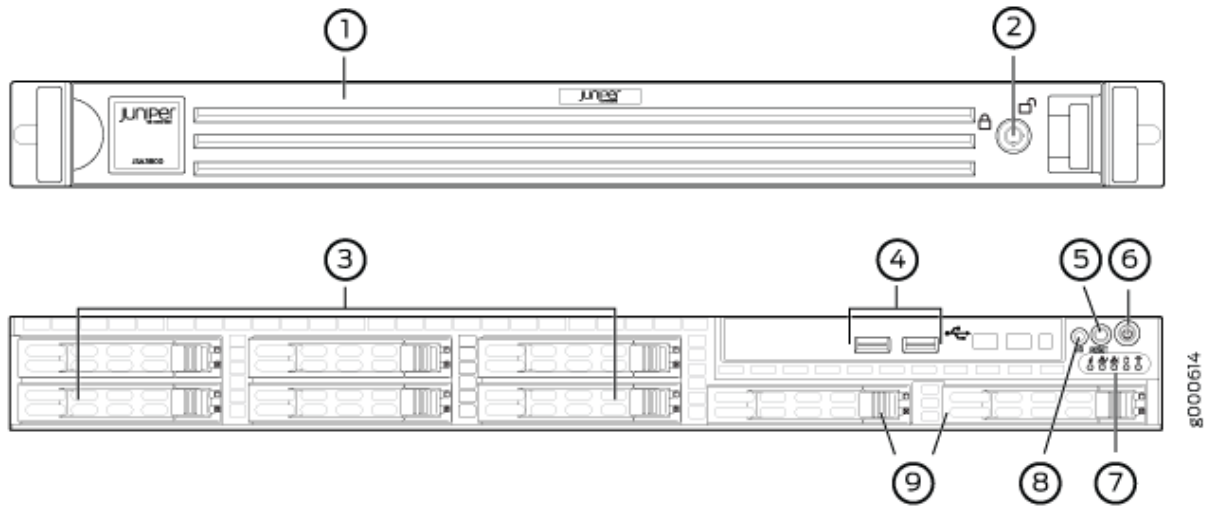


Table 2 on page 5 provides information about the front panel components of the JSA3800 appliance.

Table 2: JSA3800 Front Panel Components

Callout	Component	Description
1	Front bezel	Protects the appliance.
2	Lock	Locks the appliance.
3	Hard drive	Six 900 GB hard disk drives (Drive0 - Drive5). • Drive1 (top left) and Drive0 (bottom left) • Drive3 (top middle) and Drive2 (bottom middle) • Drive5 (top right) and Drive4 (bottom right)
4	USB ports	2 USB ports that accept a USB storage device.
5	RESET button	Reboots the appliance.
6	Power button	Powers on or powers off the appliance.

Table 2: JSA3800 Front Panel Components *(Continued)*

Callout	Component	Description
7	Chassis LEDs	Provides the colors and states, and the status they indicate.
8	UID button	Turns on or off the blue light function of the U-LED when used with a UID-compatible motherboard. Once the blue light is activated, you can easily locate the appliance in very large racks and server banks.
9	Empty slots	Empty hard drive slots.

Figure 2 on page 6 shows the front panel LEDs of the JSA3800 appliance.

Figure 2: JSA3800 Front Panel LEDs

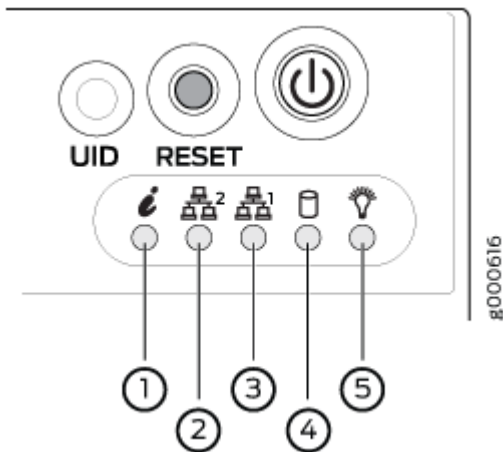


Table 3 on page 7 lists the JSA3800 front panel LEDs.

Table 3: JSA3800 Front Panel LEDs

Callout	LEDs	Description
1	Information	• Red (blinking)—Indicates a fan failure. • Solid red—Indicates an overheat condition, which might be caused by cables obstructing the airflow in the system or the ambient room temperature being too warm. • Red (slowly blinking)—Indicates a power failure. • Solid Blue—Indicates that the local UID button is depressed. • Blue (blinking)—Indicates IPMI-activated UID.
2	LAN2	When blinking, it indicates DataShare interface activity.
3	LAN1	When blinking, it indicates Management interface activity.

Table 3: JSA3800 Front Panel LEDs *(Continued)*

Callout	LEDs	Description
4	Hard drive	The chassis includes externally accessible SAS/SATA drives. There are two LEDs on each hard disk drive enclosure. The activity LED is located on the right and the status LED is located on the left. • Activity LED: • Blue (solid)—Indicates the drive is installed • Blue (blinking)—Indicates the drive is active • Status LED: • Red (solid)—Indicates failed drive for SAS/SATA/Non-Volatile Memory Express(NVMe) with Rapid Storage Technology Enterprise (RSTe) support • Red (blinking at 1 Hz)—Indicates rebuild drive for SAS/SATA with RSTe support • Red (blinking with two blinks and one stop at 1 Hz)—Indicates hot spare for SAS/SATA with RSTe support • Red (on for five seconds, then off)—Indicates power on for SAS/SATA with RSTe support • Red (blinking at 4 Hz)—Indicates identify drive for SAS/SATA with RSTe support

Table 3: JSA3800 Front Panel LEDs (Continued)

Callout	LEDs	Description
5	Power	Solid green—Indicates that the appliance is receiving power. Amber—Indicates that the power supply is in standby mode. No color—Indicates a power supply failure.

SEE ALSO

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[JSA3800 Appliance Back Panel Description | 9](#)

JSA3800 Appliance Back Panel Description

Figure 3 on page 9 shows the back panel components of the JSA3800 appliance.

Figure 3: JSA3800 Back Panel

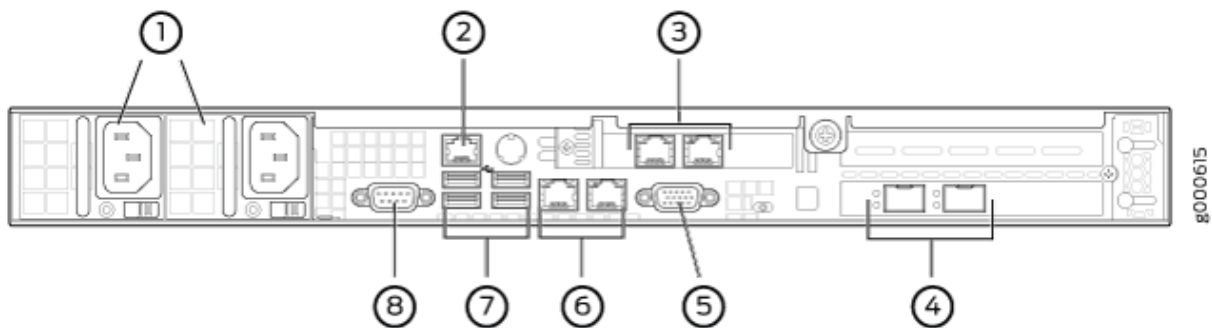


Table 4 on page 10 provides information about the back panel components of the JSA3800 appliance.

Table 4: JSA3800 Back Panel Components

Callout	Components	Description
1	Power supply	Provides power to all components. The status of the power supply LED is as follows: • Green—Indicates that the appliance is powered on. • Amber—Indicates that the power supply is in standby mode. • No color—Indicates a power supply failure.
2	Dedicated IPMI LAN port	1 dedicated IPMI LAN port.
3	GB ports	2 RJ-45 Gigabit Ethernet LAN ports. The left Ethernet port is Eth0 and the right Ethernet port is Eth1. NOTE: You can choose any GB ports as the management port.
4	10 GB+SFP ports	2 SFP+ 10GbE LAN ports.
5	VGA port	1 VGA port. NOTE: This port is not supported.
6	GB ports	2 RJ-45 Gigabit Ethernet LAN ports. NOTE: You can choose any GB ports as the management port.
7	USB ports	4 USB ports.
8	COM port	1 DB-9 COM port.

Figure 4 on page 11 shows the back panel Ethernet port LEDs of the JSA3800 appliance.

Figure 4: JSA3800 Ethernet Port LEDs

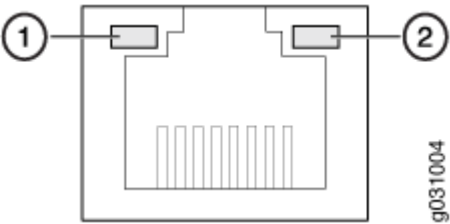


Table 5 on page 11 lists the JSA3800 Ethernet port LEDs.

Table 5: JSA3800 Ethernet Port LEDs

Callout	LEDs	Description
1	Link	• Off—Indicates no connection or the speed of the connection is 10 Mbps. • Green—Indicates that the speed of the connection is 100 Mbps. • Amber—Indicates that the speed of the connection is 1 Gbps.
2	Activity	Indicates link activity.

SEE ALSO

- [JSA3800 Appliance Description | 2](#)
- [JSA3800 Appliance Front Panel Description | 4](#)

RELATED DOCUMENTATION

- [JSA3800 Appliance Transceiver Interface | 3](#)
- [JSA3800 System Overview | 2](#)

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CHAPTER

Site Planning, Preparation, and Specifications

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JSA3800 Site Guidelines and Requirements

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- [JSA3800 Appliance Physical Specifications | 14](#)
- [JSA3800 Appliance Rack Requirements | 16](#)
- [Additional Hardware Requirements for JSA3800 Appliance | 17](#)

General Site Installation Guidelines for the JSA3800 Appliance

The following precautions can help you plan an acceptable operating environment for your JSA3800 appliance and avoid environmentally caused equipment failures:

- For the cooling system to function properly, the airflow around the chassis must be unrestricted. Allow sufficient clearance between the front and back of the chassis and adjacent equipment. Ensure that there is adequate circulation in the installation location.
- Follow the electrostatic discharge (ESD) procedures to avoid damaging the equipment. Static discharge can cause components to fail, either completely or intermittently over time.

NOTE: Install the appliance only in restricted areas, such as dedicated equipment rooms and equipment closets, in accordance with Articles 110–16, 110–17, and 110–18 of the National Electrical Code, ANSI/NFPA 70.

SEE ALSO

[Additional Hardware Requirements for JSA3800 Appliance | 17](#)

[JSA3800 Appliance Rack Requirements | 16](#)

[JSA3800 Appliance Physical Specifications | 14](#)

JSA3800 Appliance Physical Specifications

Table 6 on page 14 lists the specifications for the JSA3800 appliance.

Table 6: JSA3800 Appliance Physical Specifications

Specification	JSA3800
Dimensions (D x W x H)	437 mm x 43 mm x 597 mm (17.2 in. x 1.7 in. x 23.5 in.)
Weight	27.9 lb
Warranty	1 year HW, 90 days SW
Fans	5 x 5.6cm counter-rotating PWM fans
Panel Display	LEDs: Power, Hard Drive Activity, Network Activity, and Universal Information
Rack mountable	Front-and-rear or mid-mount
Ports	• 2 SFP+ 10GbE LAN ports • 4 RJ-45 Gigabit Ethernet LAN ports • 1 RJ-45 Dedicated IPMI LAN port • 6 USB 2.0 ports total (4 rear, 2 front) • 1 VGA port NOTE: This port is not supported. • 1 DB-9 COM port

Table 6: JSA3800 Appliance Physical Specifications (Continued)

Specification	JSA3800
Power	<i>650 W redundant AC-DC Power supply</i> • AC Input: 85 - 264 V, 47 - 63 Hz • DC Output: 3 A @ +5 V standby; 54 A @ 12 V <i>650 W DC-DC power supply (optional)</i> • DC Input: -40 VDC to -72 VDC, 40 A (Max) • DC Output: 3 A @ +5 V standby; 53 A @ 12 V
Environmental specifications	
RoHS	RoHS Compliant
Temperature operating	32° F (0° C) to 104° F (40° C)
Temperature storage	-40° F (-40° C) to 158° F (70° C)
Humidity operating	5% - 90% noncondensing
Humidity storage	5% - 95% noncondensing
Altitude operating	10,000 ft max.
Altitude storage	35,000 ft max.
Maximum thermal output	781 BTU/hour

SEE ALSO
[JSA3800 Appliance Description | 2](#)
[Additional Hardware Requirements for JSA3800 Appliance | 17](#)

JSA3800 Appliance Rack Requirements

The JSA3800 appliance can be installed in a four-post or two-post rack.

Table 7 on page 16 provides the details of requirements for rack size, clearance, airflow, spacing of mounting brackets and flange holes, and connecting to the building structure.

Table 7: Rack Requirements for JSA3800

Rack Requirement	Specifications
Size	A 19 in. (48.3 cm) rack as defined in Cabinets, Racks, Panels, and Associated Equipment (document number EIA-310-D) published by the Electronics Industry Association (http://www.eia.org).
Clearance	- The outer edges of the mounting brackets extend the width of either chassis to 19 in. (48.3 cm). - The front of the chassis extends approximately 1.5 in. (3.81 cm) beyond the mounting ears.
Spacing of mounting bracket and flange holes	- The holes within each rack set are spaced at 1-U [1.75 in. (4.5 cm)]. The device can be mounted in any rack that provides holes or hole patterns spaced at 1-U [1.75 in. (4.5 cm)] increments. The holes within each rack set are spaced at 1-U [1.75 in. (4.5 cm)]. - The device can be mounted in any rack that provides holes or hole patterns spaced at 1-U [1.75 in. (4.5 cm)] increments. - The mounting brackets and front-mount flanges used to attach the chassis to a rack are designed to fasten to holes spaced at rack distances of 1-U (3.5 in.). - The mounting holes in the mounting brackets provided with the device are spaced 1.25 in. (3.2 cm) apart (top and bottom mounting hole).
Connecting to the building structure	Always secure the rack in which you are installing the JSA3800 appliance to the structure of the building. If your geographical area is subject to earthquakes, bolt the rack to the floor. For maximum stability, also secure the rack to ceiling brackets.

SEE ALSO

[Additional Hardware Requirements for JSA3800 Appliance](#) | 17

Additional Hardware Requirements for JSA3800 Appliance

Before installing your JSA3800 appliances, ensure that you have access to the following additional hardware components:

- A serial console.
- To make sure that your JSA data is preserved during a power failure, we recommend that all JSA3800 appliances or systems running JSA software storing data (such as consoles, Event Processors, or Flow Processors) be equipped with an uninterruptible power supply (UPS).

We recommend that you install JSA on your LAN to ensure that it can communicate with your applicable resources, such as authentication servers, DNS servers, internal web servers through HTTP/HTTPS, external websites through HTTP/HTTPS (optional), the Juniper Networks update server through HTTP, network file system (NFS) file servers (optional), and client/server applications (optional). [Table 8 on page 17](#) lists port information for the JSA appliance.

Table 8: Required JSA Ports

Direction	Port	Description	LAN	Internet	Depends on Configuration
In	22	SSH command-line management	Yes	No	No
	443	Web interface	Yes	No	No
Out	22	SSH connection to new managed device	Yes	Yes	No
	53	DNS lookups	Yes	No	No

Table 8: Required JSA Ports *(Continued)*

Direction	Port	Description	LAN	Internet	Depends on Configuration
	80	System security updates from Juniper Networks	Yes	Yes	Yes
	123	NTP time synchronization	Yes	Yes	Yes

SEE ALSO

[JSA3800 Appliance Rack Requirements | 16](#)

[General Site Installation Guidelines for the JSA3800 Appliance | 13](#)
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JSA3800 Installation Overview

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- [Tools and Parts Required for Installing the JSA3800 Appliance | 20](#)

Overview of Installing the JSA3800 Appliance in a Rack

The rack-mount system is flexible and offers several options for rack-mounting the hardware. The different options include:

- ["Installing the JSA3800 Appliance Using Front-and-Rear-Mounting Flush in a Four-Post Rack" on page 24](#)
- ["Mid-Mounting the JSA3800 Appliance in a Two-Post Rack" on page 27](#)

SEE ALSO

- [Tools and Parts Required for Installing the JSA3800 Appliance | 20](#)
- [Installing the JSA3800 Appliance Using Front-and-Rear-Mounting Flush in a Four-Post Rack | 24](#)
- [Mid-Mounting the JSA3800 Appliance in a Two-Post Rack | 27](#)

Tools and Parts Required for Installing the JSA3800 Appliance

[Table 9 on page 21](#) lists the tools and equipment required for installing and maintaining the JSA3800 appliance.

Table 9: Required Tools and Parts for Installing the JSA3800 Appliance

Task	Tools and Parts
Installing the JSA3800 appliance	• Phillips (+) screwdriver, number 1 • Phillips (+) screwdriver, number 3 • Tie wrap
Connecting the JSA3800 appliance	ESD grounding wrist strap
Grounding the JSA3800 appliance	Phillips (+) screwdriver, number 1
Packing the JSA3800 appliance	• Electrostatic bag or antistatic mat, for each component • ESD grounding wrist strap

SEE ALSO

[Overview of Installing the JSA3800 Appliance in a Rack | 20](#)

[Installing the JSA3800 Appliance Using Front-and-Rear-Mounting Flush in a Four-Post Rack | 24](#)

[Mid-Mounting the JSA3800 Appliance in a Two-Post Rack | 27](#)

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Installing the JSA3800 in a Rack

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- [Mid-Mounting the JSA3800 Appliance in a Two-Post Rack | 27](#)

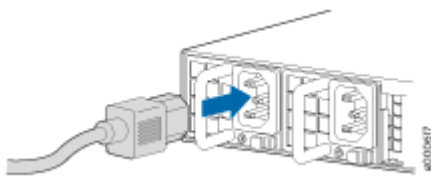
Installing the JSA3800 Appliance

Place the shipping container on a flat surface and carefully remove the hardware components.

To install the JSA3800 appliance:

1. Mount the JSA3800 appliance in your server rack using the attached mounting brackets. See ["Installing the JSA3800 Appliance Using Front-and-Rear-Mounting Flush in a Four-Post Rack" on page 24](#) and ["Mid-Mounting the JSA3800 Appliance in a Two-Post Rack" on page 27](#).
2. Plug the power cord into the AC receptacles on the rear panel as shown in [Figure 5 on page 22](#).

Figure 5: Connecting the AC Power Cord

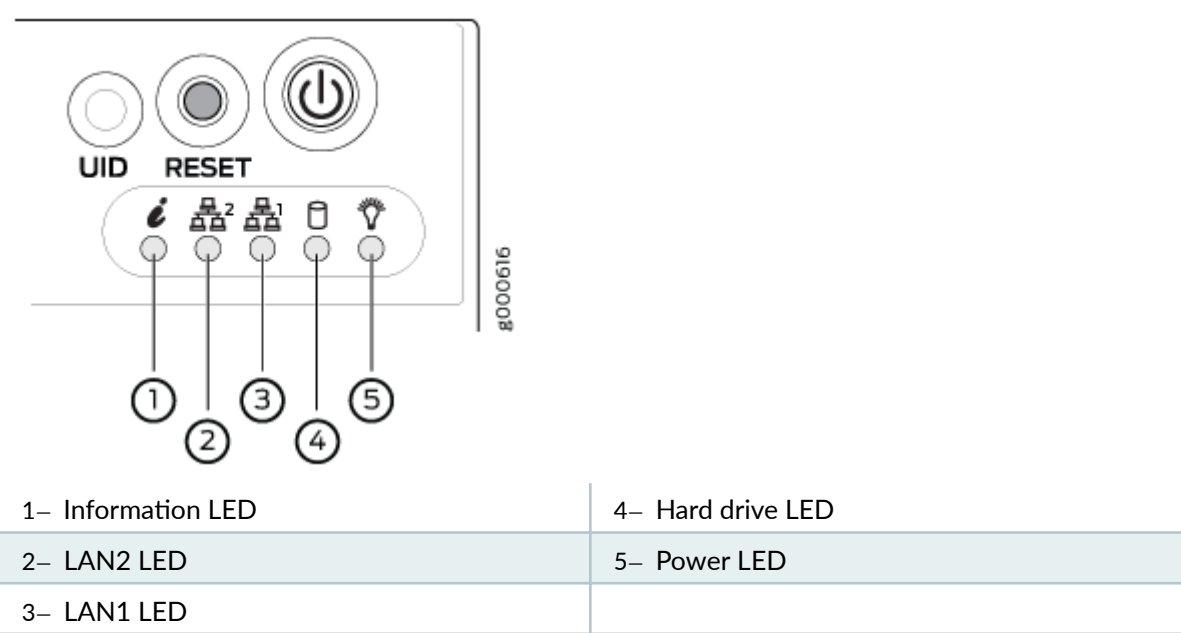


NOTE: To connect DC power, see ["Connecting the JSA3800 Appliance to a DC Power Source" on page 32](#).

3. Plug the other end of the power cord into a wall socket.
4. Plug the Ethernet cable into the Ethernet port on the back panel.

When you turn on the power, the internal port uses two LEDs to indicate the LAN connection status, as shown in [Figure 6 on page 23](#).

Figure 6: JSA3800 Front Panel LEDs



5. Plug an RS-232 (DB-9 F/F) cable into the console port.
- [Table 10 on page 23](#) describes the details of the DB-9 console port pinouts for the JSA3800 appliance.

Table 10: DB-9 Console Connector Pinouts for the JSA3800 Appliance

Pin	Signal	Description
1	DCD	Data Carrier Detect
2	RxD	Receive Data
3	TxD Output	Transmit Data
4	DTR Output	Data Terminal Ready
5	GND	Chassis Ground
6	DSR Input	Data Set Ready

Table 10: DB-9 Console Connector Pinouts for the JSA3800 Appliance (Continued)

Pin	Signal	Description
7	RTS Output	Request to Send
8	CTS Input	Clear to Send
9	RI	Ring Indicator
10	NC	Not Connected

6. Push the Power button on the front panel.

The Power LED below the power button turns on.

SEE ALSO

[Connecting the JSA3800 Appliance to a Management Device | 34](#)

[Connecting the JSA3800 Appliance to Ground | 32](#)

[Connecting the JSA3800 Appliance to a DC Power Source | 32](#)

Installing the JSA3800 Appliance Using Front-and-Rear-Mounting Flush in a Four-Post Rack

The JSA3800 appliance uses this mounting option as its default configuration. The rack mounting kit includes two rack rail assemblies. Each assembly consists of an inner fixed chassis rail that is secured to the server chassis and an outer fixed rack rail that is secured to the rack.

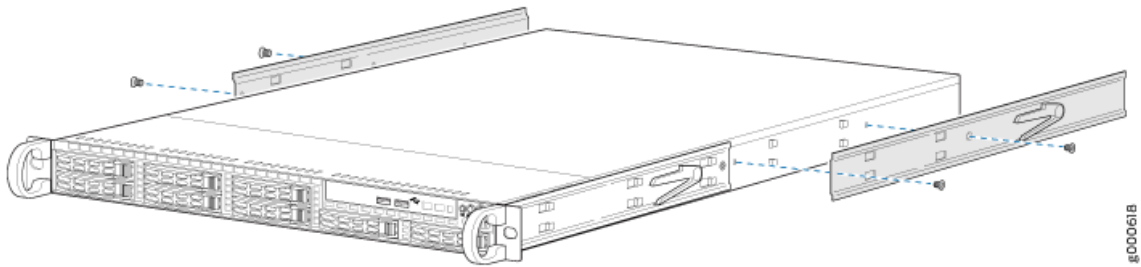
To mount the JSA3800 appliance on a four-post rack:

1. Install the inner rail extensions (optional).

NOTE: The JSA3800 appliance includes a set of inner rails that are preattached to the chassis. You can attach optional inner rail extensions to stabilize the chassis within the rack.

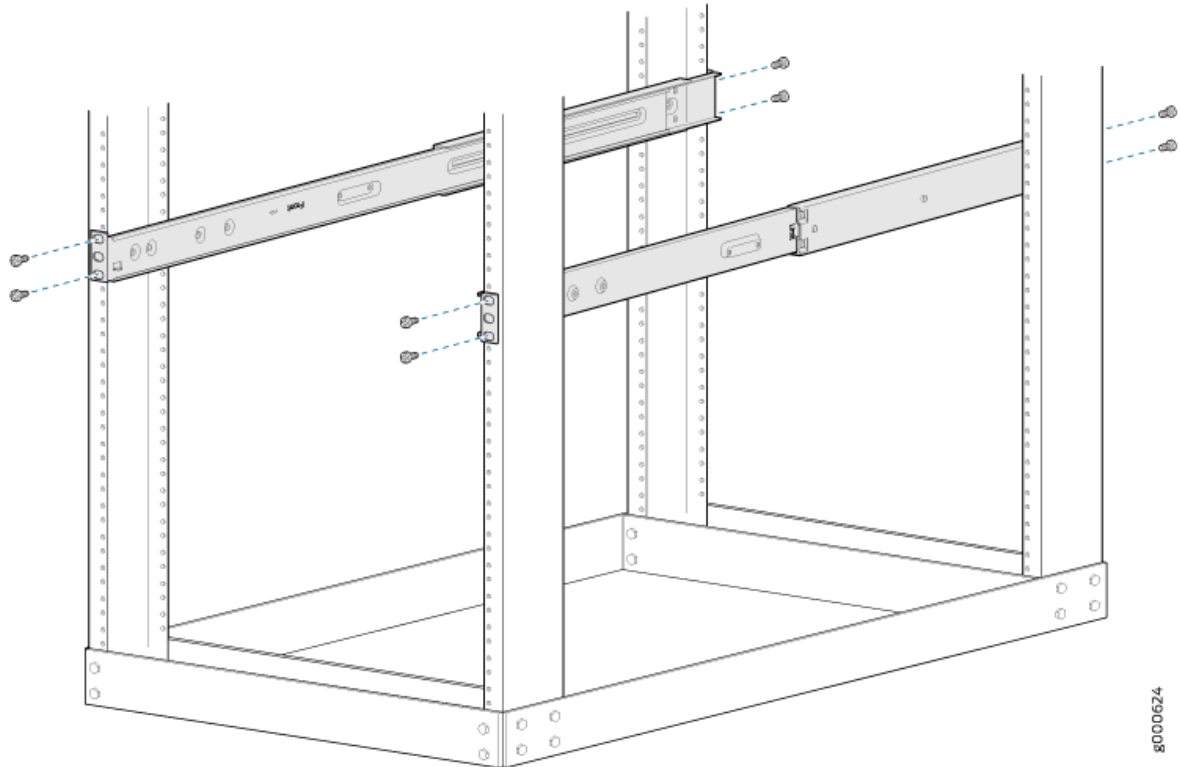
- a. Place the inner rail extensions on the side of the chassis such that the hooks on the chassis clip securely into the rail extension holes.
- b. Slide the extensions toward the front of the chassis.
- c. Secure the rails with screws as shown in [Figure 7 on page 25](#).

Figure 7: Attaching the Inner Rail Extension



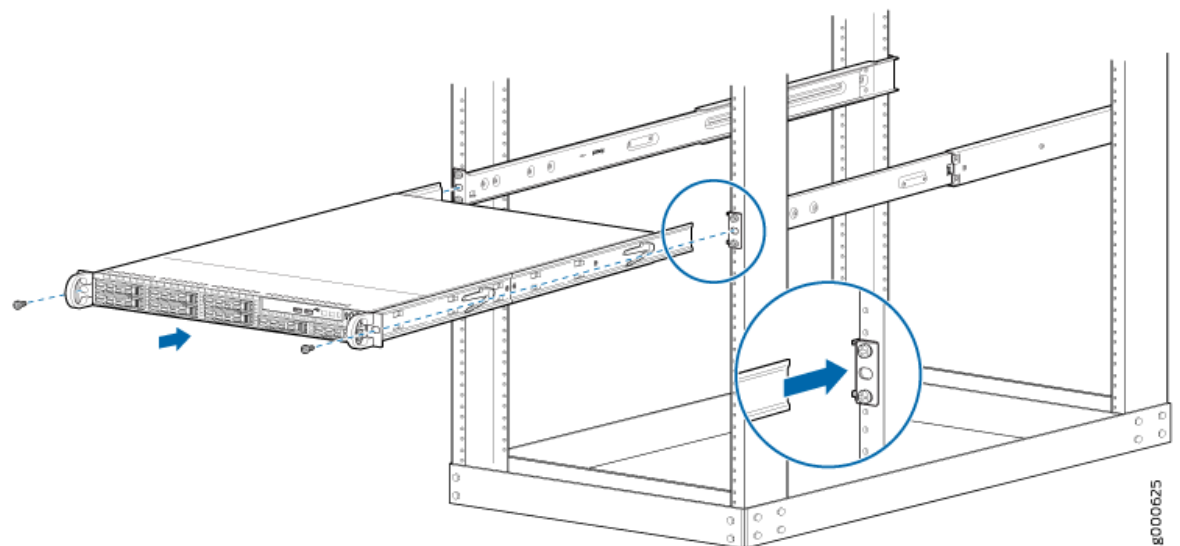
2. Install the outer rails:
 - a. Attach the shorter outer rails to the longer outer rails.
 - b. Adjust the length of the rails so that they fit snugly into the rack.
 - c. Secure the rails to the front and rear of the rack using three M5 screws each as shown in [Figure 8 on page 26](#).

Figure 8: Installing the Outer Rails in a Rack



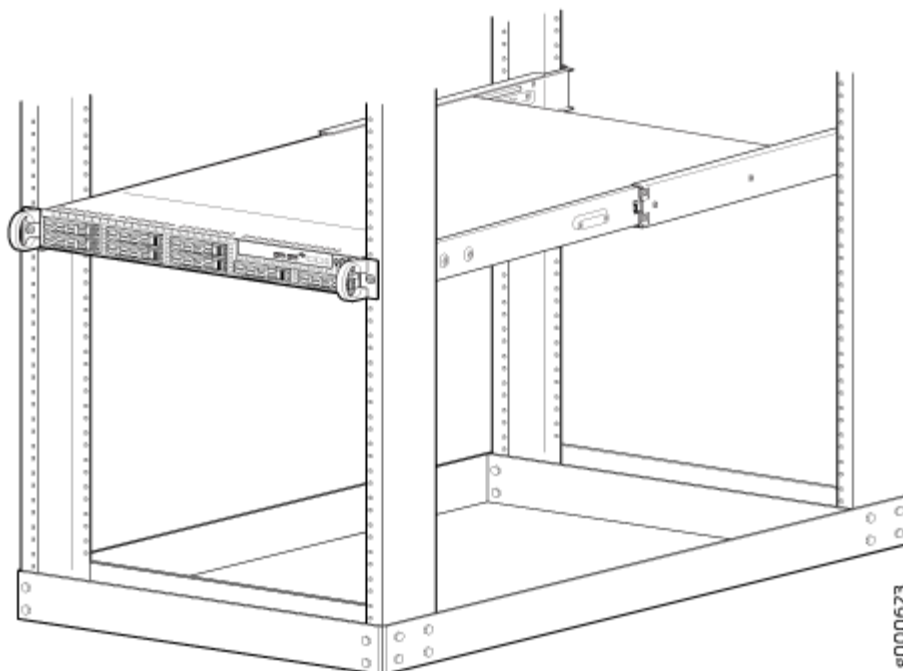
3. Align the rear of the chassis inner rails with the front of the rack rails as shown in [Figure 9 on page 26](#).

Figure 9: Aligning the Chassis in a Rack



4. Keeping the pressure even on both sides, slide the chassis rails into the rack rails until the locking tabs click into position (you might have to depress the locking tabs when inserting). See [Figure 10 on page 27](#).

Figure 10: Installing the JSA3800 Appliance Front-Rear Mounting Flush in a Four-Post Rack



5. (Optional) Insert and tighten the thumbscrews that secure the front of the server to the rack.

SEE ALSO

[Overview of Installing the JSA3800 Appliance in a Rack | 20](#)

[Tools and Parts Required for Installing the JSA3800 Appliance | 20](#)

[Mid-Mounting the JSA3800 Appliance in a Two-Post Rack | 27](#)

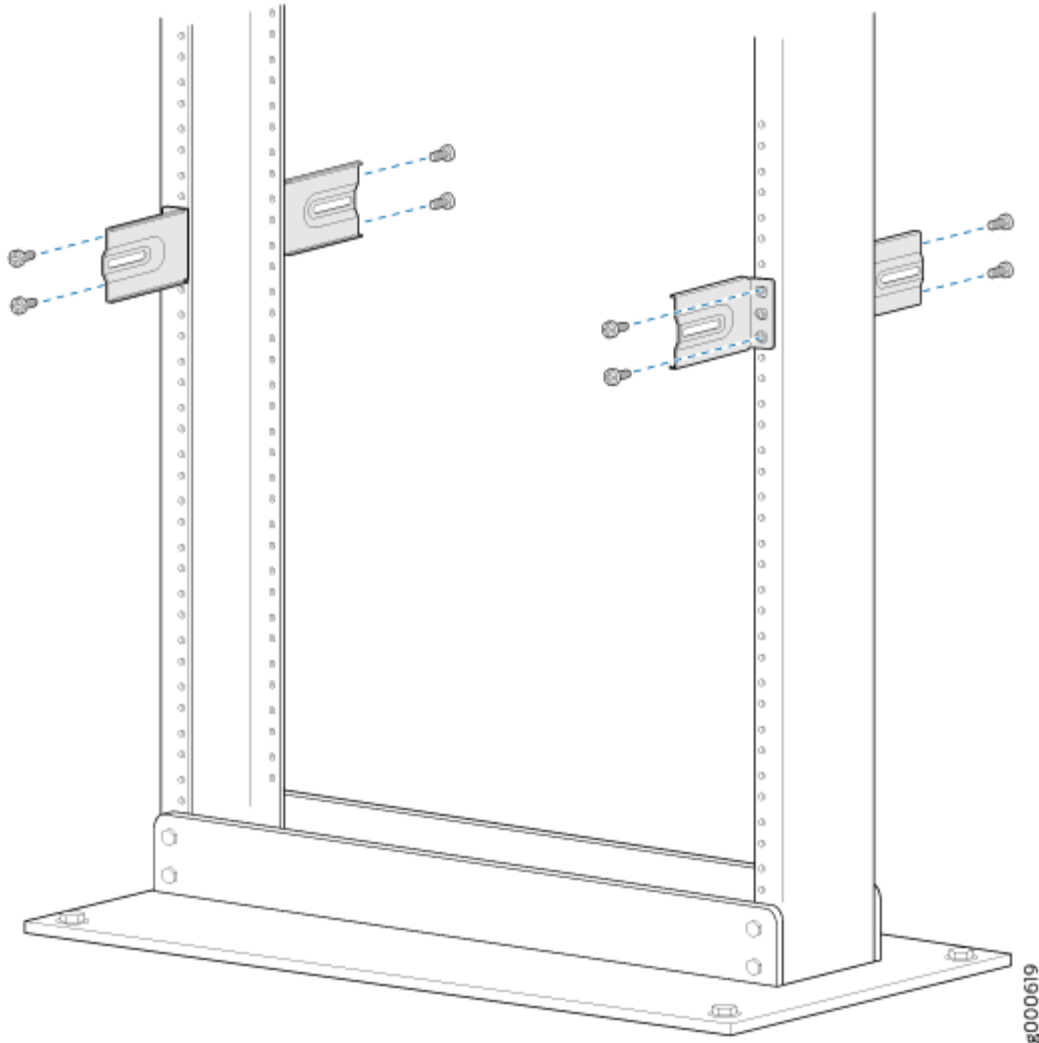
Mid-Mounting the JSA3800 Appliance in a Two-Post Rack

This option is suitable for a two-post equipment rack. It allows the appliance to be mid-mounted so that there is even clearance at the front and rear of the rack.

To mount the appliance using this option:

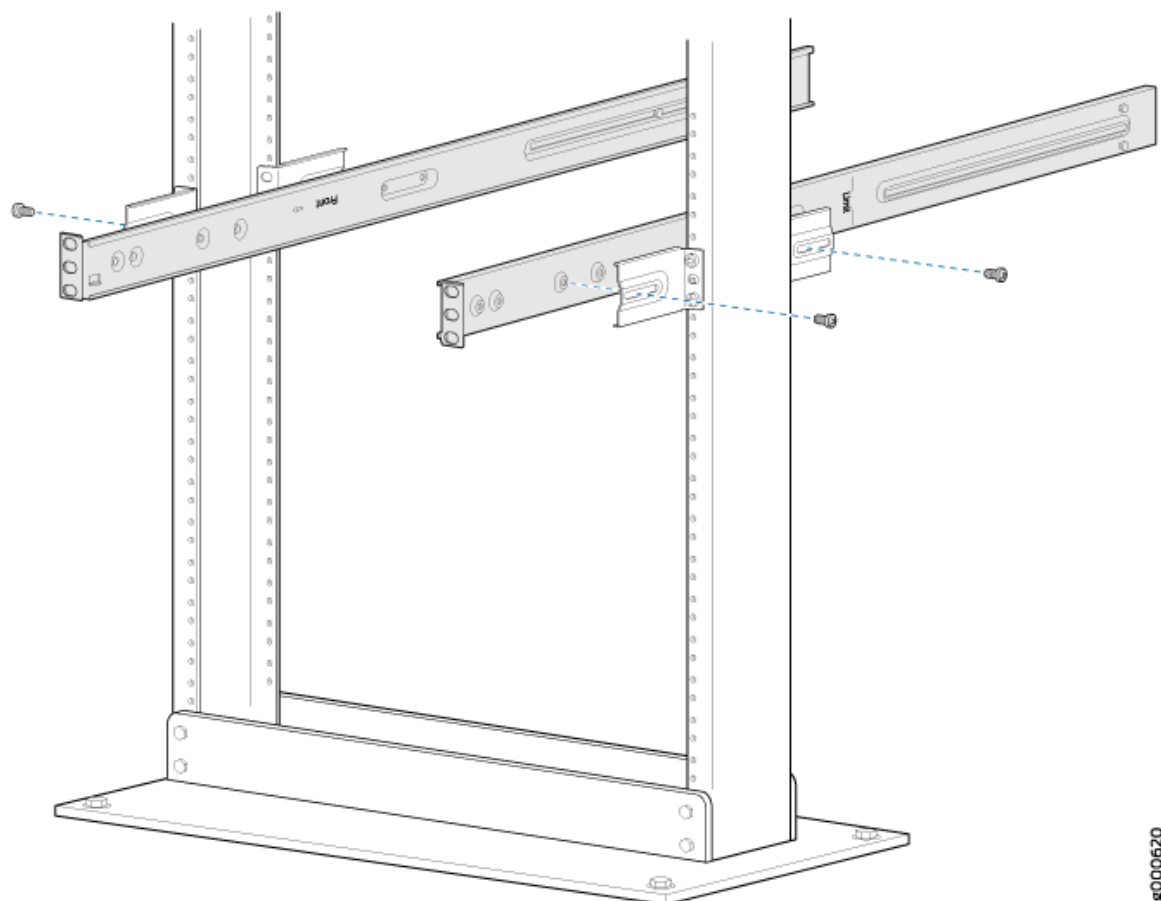
1. Determine how far the server will extend out from the front of the rack. The chassis should be positioned to balance the weight between the front and back.
2. Secure four brackets to the rack posts at the desired position. Secure two brackets to the front rack posts and attach two brackets to the rear rack posts as shown in [Figure 11 on page 28](#).

Figure 11: Securing the Brackets to the Rack



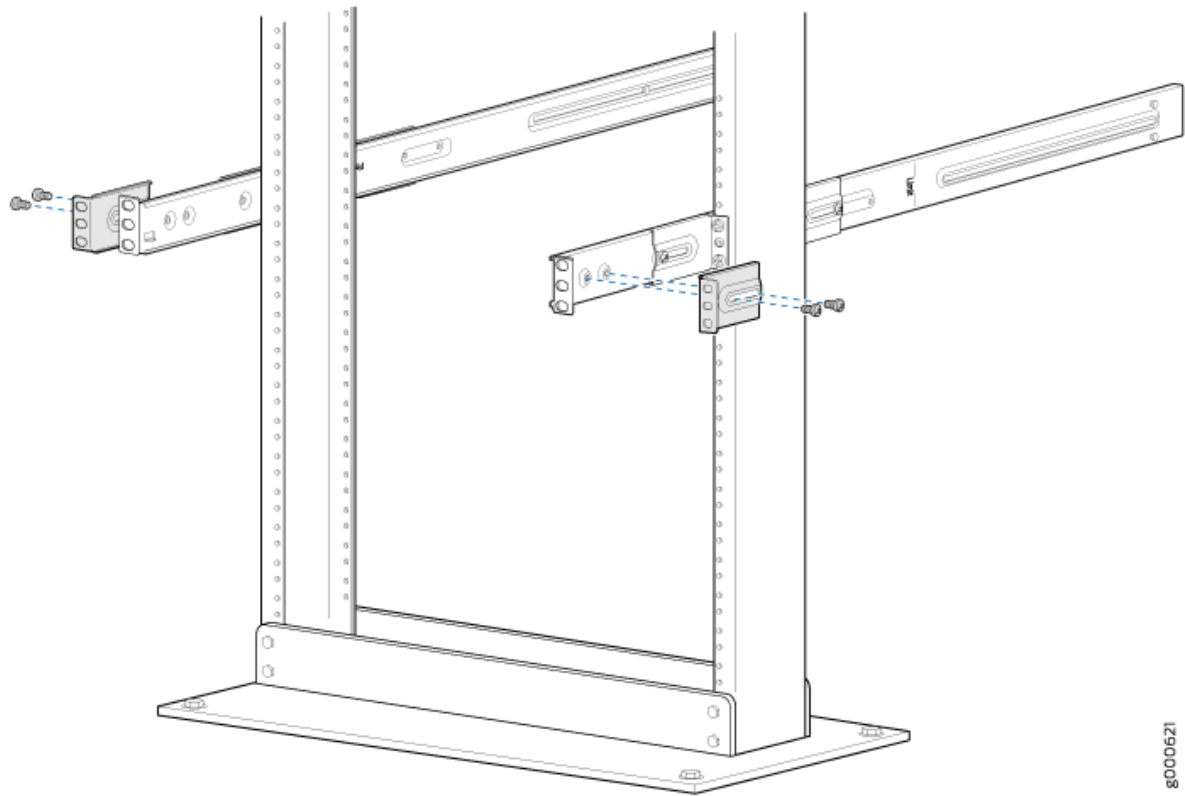
3. Mount the outer rails on the rack by securing the racks to the brackets using M5 screws as shown in [Figure 12 on page 29](#).

Figure 12: Mounting the Outer Rails to the Rack



4. Secure an additional bracket to the front of each outer rail using two M5 screws as shown in [Figure 13 on page 30](#).

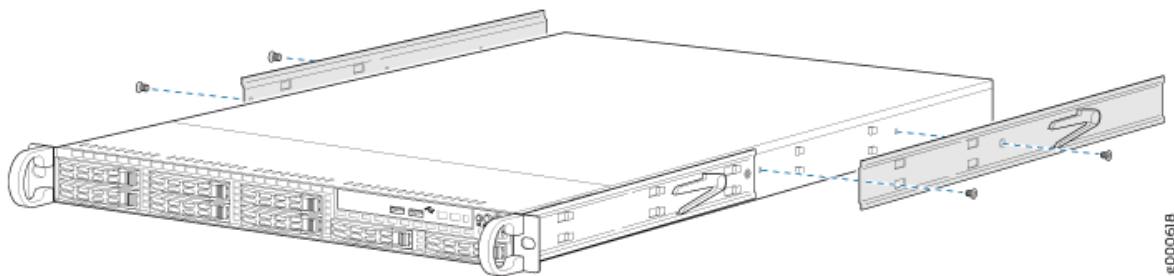
Figure 13: Securing Brackets to the Outer Rail



g000621

5. Install the inner rails on the chassis.
 - a. Place the inner rail extensions on the side of the chassis such that the hooks on the chassis clip securely into the rail extension holes.
 - b. Slide the extensions toward the front of the chassis.
 - c. Secure the rails with screws as shown in [Figure 14 on page 30](#).

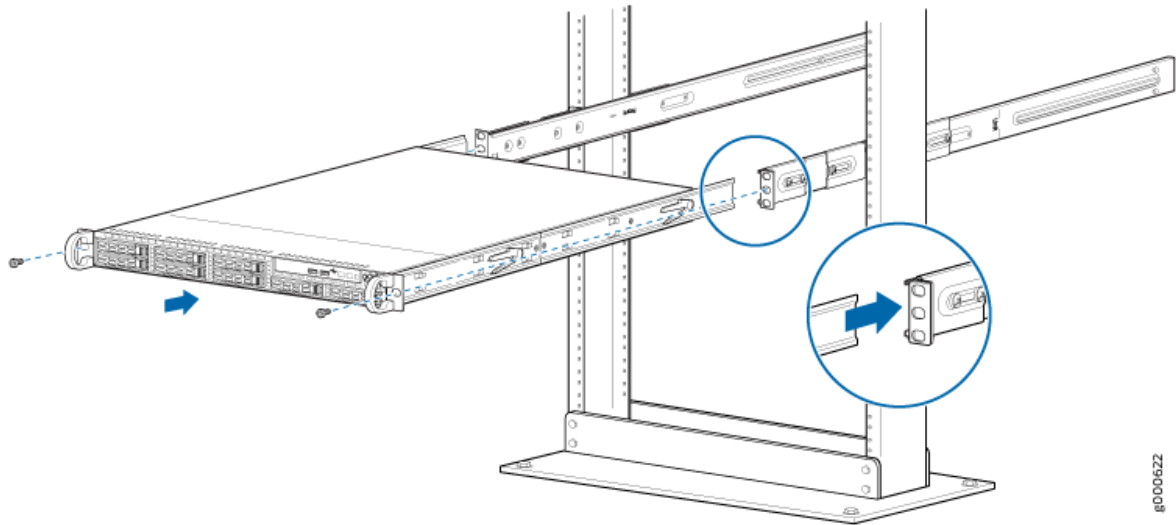
Figure 14: Attaching the Inner Rail Extension



g000618

6. Align the rear of the chassis inner rails with the front of the outer rails as shown in [Figure 15 on page 31](#).
7. Keeping the pressure even on both sides, slide the chassis rails into the rack rails.
8. Insert and tighten the thumbscrews. See [Figure 15 on page 31](#).

Figure 15: Aligning and Installing the Chassis in a Two-Post Rack



SEE ALSO

[Overview of Installing the JSA3800 Appliance in a Rack | 20](#)

[Tools and Parts Required for Installing the JSA3800 Appliance | 20](#)

[Installing the JSA3800 Appliance Using Front-and-Rear-Mounting Flush in a Four-Post Rack | 24](#)

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[JSA3800 Site Guidelines and Requirements | 13](#)

[JSA3800 Installation Overview | 20](#)

[Configuring the JSA3800 | 35](#)

Connecting the JSA3800 to Power

IN THIS SECTION

- [Connecting the JSA3800 Appliance to Ground | 32](#)
- [Connecting the JSA3800 Appliance to a DC Power Source | 32](#)

Connecting the JSA3800 Appliance to Ground

To meet safety and electromagnetic interference (EMI) requirements and to ensure proper operation, you must adequately ground the JSA3800 appliance before connecting it to the power source.

Grounding for the JSA3800 appliance is provided through the power supply ground. Ensure that you connect the AC power supply module in the appliance to a grounded AC power outlet by using an AC power cord (with the grounding pin) appropriate for your geographical location.

NOTE: A ground connection to the protective earthing terminal is not required for an AC-powered JSA3800. The AC power cords provide adequate grounding when you plug the power supply in the switch into a grounded AC power outlet by using the AC power cord appropriate for your geographical location.

SEE ALSO

- [Connecting the JSA3800 Appliance to a DC Power Source | 32](#)
- [Installing the JSA3800 Appliance | 22](#)
- [JSA3800 Appliance Back Panel Description | 9](#)

Connecting the JSA3800 Appliance to a DC Power Source

Before connecting your JSA3800 appliance to a DC power source:

- Ensure that you have taken the necessary precautions to prevent ESD damage.

- Ensure that you have connected the JSA3800 appliance chassis to earth ground.

Required tools and parts:

- DC power source cables (12-14 AWG) with ends of the wire stripped ~12 mm and twisted
- Phillips (+) screwdriver, number 1



CAUTION: Before you connect power to the JSA3800 appliance, attach the ground wire in one of the below configurations to meet the safety requirements and to ensure proper operation:

- Both power supply ground terminals
- One or both of the chassis ground terminal(s) located to the left of the power supply modules
- Both power supply ground terminals

You connect DC source power to the JSA3800 appliance by attaching power cables from the external DC power sources to the terminal studs on the DC power feed faceplates.



WARNING: DC-powered JSA3800 appliances are intended for installation only in restricted access locations.



WARNING: Before you perform the following procedure, ensure that power is removed from the DC circuit. To ensure that all power is off, locate the circuit breaker on the panel board that services the DC circuit, switch the circuit breaker to the OFF position, and tape the switch handle of the circuit breaker in the OFF position.

To connect the DC source power to the JSA3800 appliance:

1. Ensure that the input circuit breaker is open so that the voltage across the DC power source cable leads is 0 V, and so that the cable leads will not become active while you are connecting DC power.
2. Connect the stripped and twisted wires to the wire clamps under the DC terminal screws on the back panel of the JSA3800 appliance.

NOTE: The red cable should be connected to the V+ terminal, and the black cable should be connected to the V- terminal, respectively.

3. Use the terminal screws to secure the power source cables to the power feed on the JSA3800 appliance by attaching the twisted wires that are attached to the cables to the appropriate terminals.

4. Attach the plastic safety cover.

SEE ALSO

[Connecting the JSA3800 Appliance to a Management Device | 34](#)

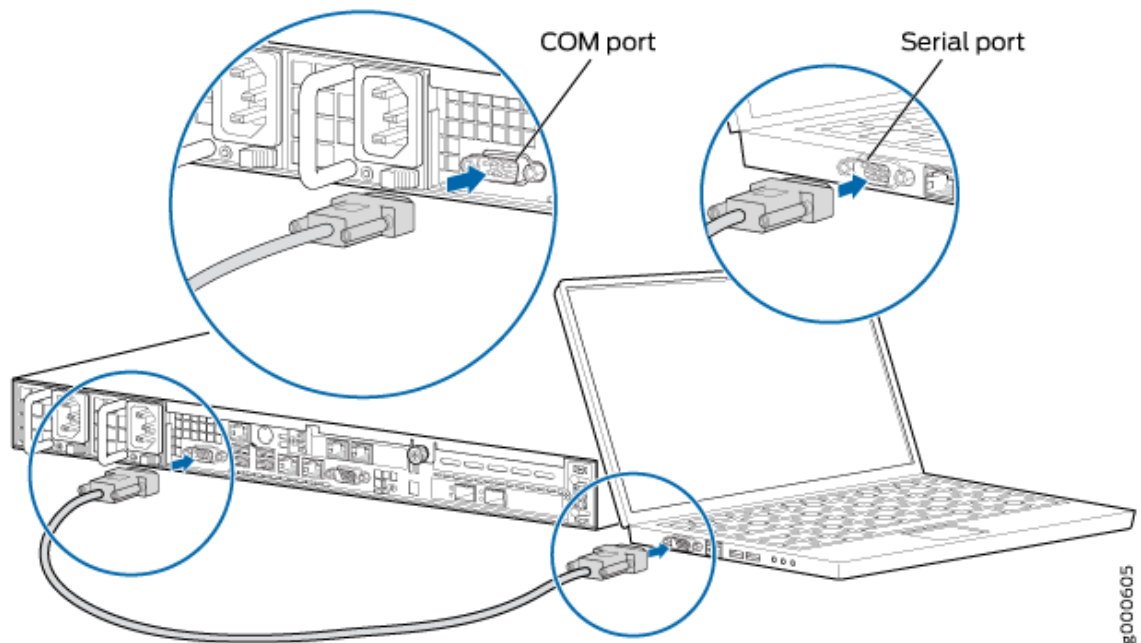
[Installing the JSA3800 Appliance | 22](#)

[Connecting the JSA3800 Appliance to Ground | 32](#)

Connecting the JSA3800 Appliance to a Management Device

You can control the JSA3800 appliance through a connected management device (such as a laptop). Use the console port to connect your laptop as shown in [Figure 16 on page 34](#).

Figure 16: Connecting the Management Device



For the location of the ports, refer to the *JSA3800 Back Panel Components* table in "[JSA3800 Appliance Back Panel Description](#)" on page 9.

NOTE: You can choose any GB ports as the management port.

To connect a management device with the JSA3800 appliance:

1. Connect external devices using the ports on the back panel of the appliance.
2. If you use a laptop, connect the laptop to the DB-9 serial console port on the back panel.
3. Plug an Ethernet cable into the network port on the back panel.
4. Plug a RS-232 (DB-9 F/F) cable into the console port.

NOTE: When using a laptop to connect to the appliance, you must use a terminal program, such as HyperTerminal, to connect to the appliance.

5. Select the appropriate COM port to use.
6. Configure the following port settings:
 - Bits per second = **9600**
 - Stop bits = **1**
 - Data bits = **8**
 - Parity = **None**

RELATED DOCUMENTATION

[Connecting the JSA3800 Appliance to Ground | 32](#)

[Connecting the JSA3800 Appliance to a DC Power Source | 32](#)

[Installing the JSA3800 Appliance | 22](#)

Configuring the JSA3800

IN THIS SECTION

- [Configuring the Basic Settings on the JSA3800 Appliance | 36](#)

Configuring the Basic Settings on the JSA3800 Appliance

To configure the basic setting using the JSA interface:

NOTE: When using a laptop to connect to the appliance, you must use a terminal program, such as HyperTerminal, to connect to the appliance.

1. At the console prompt, log in as **root** (default username). No password is required when you log in for the first time.

NOTE: The username is case sensitive.

2. Press **Enter**. The End User License Agreement (EULA) appears.
3. Read the information and press the Spacebar to advance each window until you have reached the end of the agreement.
4. Type **YES** to accept the agreement, then press **Enter**. The Appliance ID selection window appears.

NOTE: Although your current position is not highlighted, use the up or down arrow keys and Spacebar to select an option. Use the left or right arrow keys to select **Next**.

5. Select the appliance ID and then press **Enter** to select **Next**.
6. Select **normal** from the following types of setup:
 - *normal*—Default setup
 - *recovery*—HA recovery setup
7. Select **Next**. The Tuning Template window appears.
8. Select **Enterprise** and then select **Next**. The Date and Time window appears.
9. Select the method you want to use to set the date and time:
 - *Manual*—Allows you to manually input the date and time. Select **Next**.
 - *Server*—Allows you to specify your time server. Select **Next**.
10. Select your time zone continent or area, and then select **Next**.

11. Select your time zone region, and then select **Next**. The options appearing in this window are regions associated with the continent or area previously selected.
12. Select one of the following Internet protocols, IPv6 or IPv4.
13. Select **Next**. The Management Interface window appears.
14. Select the interface you want to specify as the management interface and select **Next**.
15. To configure the JSA network settings, enter the values for the following parameters. Use the up or down arrow keys to navigate the fields:
 - *Hostname*—Type a fully qualified domain name (FQDN) as the system hostname.
 - *IP Address*—Specify the IP address of the system.
 - *Netmask*—Specify the network mask address for the system.
 - *Gateway*—Specify the default gateway for the system.
 - *Primary DNS*—Specify the primary DNS server.
 - *Secondary DNS*—(Optional) Specify the secondary DNS server.
 - *Public IP*—(Optional) Specify the public IP address of the server. The server uses this IP address to communicate with another server that belongs to a different network using Network Address Translation (NAT). NAT translates an IP address in one network to a different IP address in another network.
 - *Email Server*—Specify the e-mail server. If you do not have an e-mail server, specify the local host in this field.
16. Use Tab to select **Next**. Press **Enter**. The New Root Password window appears.
17. To configure the JSA root password:
 - a. Type a new password.
 - b. Select **Next** and then press **Enter**. The Confirm New Root Password window appears.
 - c. Reenter your new password to confirm, and select **Finish**.

A series of messages appears as JSA continues with the installation; this process takes from three to five minutes. When the JSA installation process is complete, the message window appears.
18. Press **Enter** and select **OK** to complete the installation.

You are now ready to access JSA. For more information, see ["Accessing the JSA Interface" on page 38](#).
19. Type **exit** and press **Enter**.

SEE ALSO

[Accessing the JSA Interface | 38](#)

[JSA3800 Appliance Physical Specifications | 14](#)

[Connecting the JSA3800 Appliance to a Management Device | 34](#)

Accessing the JSA Interface

IN THIS SECTION

● [Purpose | 38](#)

● [Action | 38](#)

Purpose

To access a Juniper Secure Analytics (JSA) interface:

Action

1. Open your Web browser.

NOTE: JSA supports the following browsers:

- 32-bit Microsoft Internet Explorer, with document mode and browser mode enabled - 8.0 and 9.0
- Mozilla Firefox - 17.0 ESR and 24.0 ESR

NOTE: Because of Mozilla's short release cycle, we cannot commit to testing on the latest versions of the Mozilla Firefox Web browser. However, we are fully committed to investigating any issues that are reported.

- Google Chrome - Latest version

2. Log in to JSA:

https://<IP Address>

<IP Address> is the IP address of the JSA system.

The default values are:

Username: admin

Password: <root password>

<root password> is the new root password you set during the installation process.

3. Click **Login To JSA**.

The JSA interface appears. You are now ready to start tuning JSA and high availability (HA) settings. For more information, see the *Juniper Secure Analytics Administration Guide*.

NOTE: You will need a permanent license for the JSA appliance to upgrade to a higher version. If you have a temporary license, the upgrade will fail; run the installer again to upgrade to a higher version.

SEE ALSO

[Configuring the Basic Settings on the JSA3800 Appliance | 36](#)

[JSA3800 Appliance Physical Specifications | 14](#)

[Connecting the JSA3800 Appliance to a Management Device | 34](#)

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4

CHAPTER

Maintaining Components

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Maintaining JSA3800 Power System | 42

Maintaining the JSA3800 RAID Array

Redundant array of independent disk (RAID) is a method of using multiple disks to store the same data in different locations to increase fault tolerance and improve performance. A RAID array is used in the servers for data storage and to replicate data among multiple hard disk drives. There are different RAID levels designed to increase data reliability and I/O performance.

The key concepts in RAID are:

- Mirroring—Copy data to more than one disk
- Striping—Split data across more than one disk
- Error correction—Redundant data storage to detect and resolve problems

The JSA3800 appliance ships with hot-swappable hard disks to offer component redundancy. The JSA3800 appliance uses the RAID10 configuration. In RAID10, drives are duplicated for fault tolerance.

To monitor the JSA3800 RAID array, use the following commands:

- For the volume status, use `sas2ircu 0 status`

For example, `[root@localhost ~]# sas2ircu 0 status`

- For the device status, use `sas2ircu 0 display`

NOTE: You can use this command if the volume state is degraded.

- For the RAID consistency check, use `sas2ircu 0 constchk <id>`.

where `<id>` is the Volume ID displayed in the *Status* output.

NOTE: Run a consistency check on the JSA3800 appliance at least once a month to ensure that the defects are mapped out in case of a drive failure.

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[JSA3800 Appliance Physical Specifications](#) | 14

[JSA3800 Appliance Front Panel Description](#) | 4

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Maintaining JSA3800 Power System

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- [Replacing AC Power Supply Cables on the JSA3800 Appliance | 44](#)
- [Replacing a DC Power Supply on the JSA3800 Appliance | 44](#)
- [Replacing DC Power Supply Cables on the JSA3800 Appliance | 45](#)

Maintaining the JSA3800 Power Supply

The JSA3800 appliance ships with two AC power supply modules. If one power supply fails, the second power supply takes over the entire power load.

NOTE: The JSA3800 appliance also supports DC power supply modules.

To maintain the power supplies, follow these guidelines:

- Ensure that the power and grounding cables are arranged so that they do not obstruct access to other components.
- Routinely check the power LED on the power supply module. The status of the power LED is as follows:
 - If the LED status is green, the power supply is functioning normally.
 - If the LED status is amber, the power supply is in standby mode.
 - If there is no color for the LED, the power supply module is not functioning normally.
- Periodically inspect the site to ensure that the grounding and power cables connected to the JSA3800 appliance are securely in place and that there no moisture is accumulating near the appliance.

To monitor the power supply modules, execute the following commands:

- To enable IPMI and boot, use `# chkconfig ipmi on`
- To start IPMI service, use `service ipmi start`
- To load IPMI driver, use `modprobe ipmi_devintf`

For example, the following load driver is displayed:

```
[root@hw-jsa3800 ~]# lsmod |grep ipmi
ipmi_devintf 7729 0
```

- For the IPMI hardware status, use `# ipmitool sdr`

SEE ALSO

[JSA3800 Appliance Physical Specifications | 14](#)

[JSA3800 Appliance Front Panel Description | 4](#)

[JSA3800 Appliance Back Panel Description | 9](#)

Replacing an AC Power Supply on the JSA3800 Appliance

To replace an AC power supply:

1. Attach an ESD grounding strap to your bare wrist and connect the strap to one of the ESD points on the chassis.
2. Remove the power cord from the power supply.
3. Push the release tab of the power supply on the back panel of the chassis.
4. Pull the power supply straight out of the chassis using the provided handle. Use one hand for support underneath the supply as you remove it.
5. Orient the replacement power supply.
6. Using both hands, slide the replacement power supply straight into the chassis until the power supply is fully seated in the chassis slot. Make sure the tab on the power supply clicks into place.
7. Attach the power cord to the power supply. If the power supply is correctly installed and functioning normally, the power supply powers up immediately.

SEE ALSO

[Replacing AC Power Supply Cables on the JSA3800 Appliance | 44](#)

[Replacing DC Power Supply Cables on the JSA3800 Appliance | 45](#)

Replacing AC Power Supply Cables on the JSA3800 Appliance

To replace an AC power supply cord:

1. Attach an ESD grounding strap to your bare wrist and connect the strap to one of the ESD points on the chassis.
2. Unplug the power cord from the power source receptacle.
3. Unplug the power cord from the appliance inlet on the power supply.
4. Locate a replacement power cord with the type of plug appropriate for your geographical location.
5. Insert the power cord plug into an external AC power source receptacle.
6. Connect the power cord to the power supply.
7. Verify that the power cord does not block the air exhaust and access to device components, or drape where people could trip on it.
8. If the power supply is correctly installed and functioning normally, the supply automatically powers up.

SEE ALSO

[Replacing an AC Power Supply on the JSA3800 Appliance | 43](#)

[Replacing DC Power Supply Cables on the JSA3800 Appliance | 45](#)

[Replacing a DC Power Supply on the JSA3800 Appliance | 44](#)

Replacing a DC Power Supply on the JSA3800 Appliance

To replace a DC power supply:

1. Switch off the dedicated facility circuit breaker for the power supply being removed.
2. Make sure that the voltage across the DC power source cable leads is 0 V and that there is no chance that the cables might become active during the removal process.
3. Attach an ESD grounding strap to your bare wrist and connect the strap to one of the ESD points on the chassis.
4. Remove the clear plastic cover protecting the terminal studs on the faceplate.

5. Remove the screws from the terminals. Use a number-2 Phillips screwdriver to loosen and remove the screws.
6. Remove the cable lugs from the terminals.
7. Carefully move the power cables out of the way.
8. Push the tab of the power supply.
9. Pull the power supply straight out of the chassis.
10. Using both hands, slide the replacement power supply straight into the chassis until the power supply is fully seated in the chassis slot. Make sure the tab on the left edge of the power supply clicks into place.
11. To connect the DC source power to the JSA3800 appliance, see "[Connecting the JSA3800 Appliance to a DC Power Source](#)" on page 32.

SEE ALSO

[Connecting the JSA3800 Appliance to a DC Power Source](#) | 32

[Replacing AC Power Supply Cables on the JSA3800 Appliance](#) | 44

[Replacing an AC Power Supply on the JSA3800 Appliance](#) | 43

[Replacing DC Power Supply Cables on the JSA3800 Appliance](#) | 45

Replacing DC Power Supply Cables on the JSA3800 Appliance

To replace a DC power supply cable connected to JSA3800:

1. Attach an ESD grounding strap to your bare wrist and connect the strap to one of the ESD points on the chassis.
2. Switch off the external circuit breakers for all the cables attached to the power supply. Ensure that the voltage across the DC power source cable leads is 0 V and that there is no chance that the cables might become active during the removal process.
3. Remove the clear plastic cover over the terminal studs on the faceplate.
4. Remove the power cable from the DC power source.

NOTE: Ensure the cable is not touching or in the way of any components, and that it does not drape where people could trip on it.

5. Attach the power cable to the DC power source. For more information, see "[Connecting the JSA3800 Appliance to a DC Power Source](#)" on page 32.

6. Replace the clear plastic cover over the terminal studs on the faceplate.
7. If the power supply is correctly installed and functioning normally, the supply automatically powers up.

SEE ALSO

[Replacing AC Power Supply Cables on the JSA3800 Appliance | 44](#)

[Replacing an AC Power Supply on the JSA3800 Appliance | 43](#)

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5

CHAPTER

Troubleshooting Hardware

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Contacting Juniper Networks Technical Assistance Center

You can contact Juniper Networks Technical Assistance Center (JTAC) 24 hours a day, 7 days a week in one of the following ways:

- On the Web, using the Case Manager link at: <https://www.juniper.net/support/>
- By telephone:
 - From the US and Canada: 1-888-314-JTAC
 - From all other locations: 1-408-745-9500

If contacting JTAC by phone, enter your 12-digit case number followed by the # key if this is an existing case, or press the * key to be routed to the next available support engineer.

When requesting support from JTAC by telephone, be prepared to provide the following information:

- Your existing case number, if you have one
- Details of the failure or problem
- Type of activity being performed on the platform when the problem occurred
- Configuration data using one or more of the show commands

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Definitions of Safety Warning Levels

The documentation uses the following levels of safety warnings (there are two *Warning* formats):

NOTE: You might find this information helpful in a particular situation, or you might overlook this important information if it was not highlighted in a Note.



CAUTION: You need to observe the specified guidelines to prevent minor injury or discomfort to you or severe damage to the device.

Attention Veillez à respecter les consignes indiquées pour éviter toute incommodité ou blessure légère, voire des dégâts graves pour l'appareil.



LASER WARNING: This symbol alerts you to the risk of personal injury from a laser.

Avertissement Ce symbole signale un risque de blessure provoquée par rayon laser.



WARNING: This symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry, and familiarize yourself with standard practices for preventing accidents.

Waarschuwing Dit waarschuwingssymbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van standaard maatregelen om ongelukken te voorkomen.

Varoitus Tämä varoitusmerkki merkitsee vaaraa. Olet tilanteessa, joka voi johtaa ruumiinvammaan. Ennen kuin työskentelet minkään laitteiston parissa, ota selvää sähkökytkentöihin liittyvistä vaaroista ja tavanomaisista onnettomuuksien ehkäisykeinoista.

Avertissement Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant causer des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers posés par les circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents.

Warnung Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu einer Körperverletzung führen könnte. Bevor Sie mit der Arbeit an irgendeinem Gerät beginnen, seien Sie sich der mit elektrischen Stromkreisen verbundenen Gefahren und der Standardpraktiken zur Vermeidung von Unfällen bewußt.

Avvertenza Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di lavorare su qualsiasi apparecchiatura, occorre conoscere i pericoli relativi ai circuiti elettrici ed essere al corrente delle pratiche standard per la prevenzione di incidenti.

Advarsel Dette varselsymbolet betyr fare. Du befinner deg i en situasjon som kan føre til personskade. Før du utfører arbeid på utstyr, må du være oppmerksom på de faremomentene som elektriske kretser innebærer, samt gjøre deg kjent med vanlig praksis når det gjelder å unngå ulykker.

Aviso Este símbolo de aviso indica perigo. Encontra-se numa situação que lhe poderá causar danos físicos. Antes de começar a trabalhar com qualquer equipamento, familiarize-se com os perigos relacionados com circuitos eléctricos, e com quaisquer práticas comuns que possam prevenir possíveis acidentes.

¡Atención! Este símbolo de aviso significa peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considerar los riesgos que entraña la corriente eléctrica y familiarizarse con los procedimientos estándar de prevención de accidentes.

Varning! Denna varningssymbol signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanligt förfarande för att förebygga skador.

General Safety Guidelines and Warnings

The following guidelines help ensure your safety and protect the device from damage. The list of guidelines might not address all potentially hazardous situations in your working environment, so be alert and exercise good judgment at all times.

- Perform only the procedures explicitly described in the hardware documentation for this device. Make sure that only authorized service personnel perform other system services.
- Keep the area around the device clear and free from dust before, during, and after installation.
- Keep tools away from areas where people could trip over them while walking.

- Do not wear loose clothing or jewelry, such as rings, bracelets, or chains, which could become caught in the device.
- Wear safety glasses if you are working under any conditions that could be hazardous to your eyes.
- Do not perform any actions that create a potential hazard to people or make the equipment unsafe.
- Never attempt to lift an object that is too heavy for one person to handle.
- Never install or manipulate wiring during electrical storms.
- Never install electrical jacks in wet locations unless the jacks are specifically designed for wet environments.
- Operate the device only when it is properly grounded.
- Follow the instructions in this guide to properly ground the device to earth.
- Replace fuses only with fuses of the same type and rating.
- Do not open or remove chassis covers or sheet-metal parts unless instructions are provided in the hardware documentation for this device. Such an action could cause severe electrical shock.
- Do not push or force any objects through any opening in the chassis frame. Such an action could result in electrical shock or fire.
- Avoid spilling liquid onto the chassis or onto any device component. Such an action could cause electrical shock or damage the device.
- Avoid touching uninsulated electrical wires or terminals that have not been disconnected from their power source. Such an action could cause electrical shock.
- Some parts of the chassis, including AC and DC power supply surfaces, power supply unit handles, SFB card handles, and fan tray handles might become hot. The following label provides the warning for hot surfaces on the chassis:



- Always ensure that all modules, power supplies, and cover panels are fully inserted and that the installation screws are fully tightened.

Restricted Access Warning



WARNING: This unit is intended for installation in restricted access areas. A restricted access area is an area to which access can be gained only by service personnel through the use of a special tool, lock and key, or other means of security, and which is controlled by the authority responsible for the location.

Waarschuwing Dit toestel is bedoeld voor installatie op plaatsen met beperkte toegang. Een plaats met beperkte toegang is een plaats waar toegang slechts door servicepersoneel verkregen kan worden door middel van een speciaal instrument, een slot en sleutel, of een ander veiligheidsmiddel, en welke beheerd wordt door de overheidsinstantie die verantwoordelijk is voor de locatie.

Varoitus Tämä laite on tarkoitettu asennettavaksi paikkaan, johon pääsy on rajoitettua. Paikka, johon pääsy on rajoitettua, tarkoittaa paikkaa, johon vain huoltohenkilöstö pääsee jonkin erikoistyökalun, lukkoon sopivan avaimen tai jonkin muun turvalaitteen avulla ja joka on paikasta vastuussa olevien toimivaltaisten henkilöiden valvoma.

Avertissement Cet appareil est à installer dans des zones d'accès réservé. Ces dernières sont des zones auxquelles seul le personnel de service peut accéder en utilisant un outil spécial, un mécanisme de verrouillage et une clé, ou tout autre moyen de sécurité. L'accès aux zones de sécurité est sous le contrôle de l'autorité responsable de l'emplacement.

Warnung Diese Einheit ist zur Installation in Bereichen mit beschränktem Zutritt vorgesehen. Ein Bereich mit beschränktem Zutritt ist ein Bereich, zu dem nur Wartungspersonal mit einem Spezialwerkzeugs, Schloß und Schlüssel oder anderer Sicherheitsvorkehrungen Zugang hat, und der von dem für die Anlage zuständigen Gremium kontrolliert wird.

Avvertenza Questa unità deve essere installata in un'area ad accesso limitato. Un'area ad accesso limitato è un'area accessibile solo a personale di assistenza tramite un'attrezzo speciale, lucchetto, o altri dispositivi di sicurezza, ed è controllata dall'autorità responsabile della zona.

Advarsel Denne enheten er laget for installasjon i områder med begrenset adgang. Et område med begrenset adgang gir kun adgang til servicepersonale som bruker et spesielt verktøy, lås og nøkkel, eller en annen sikkerhetsanordning, og det kontrolleres av den autoriteten som er ansvarlig for området.

Aviso Esta unidade foi concebida para instalação em áreas de acesso restrito. Uma área de acesso restrito é uma área à qual apenas tem acesso o pessoal de serviço autorizado,

que possua uma ferramenta, chave e fechadura especial, ou qualquer outra forma de segurança. Esta área é controlada pela autoridade responsável pelo local.

¡Atención! Esta unidad ha sido diseñada para instalarse en áreas de acceso restringido. Área de acceso restringido significa un área a la que solamente tiene acceso el personal de servicio mediante la utilización de una herramienta especial, cerradura con llave, o algún otro medio de seguridad, y que está bajo el control de la autoridad responsable del local.

Warning! Denna enhet är avsedd för installation i områden med begränsat tillträde. Ett område med begränsat tillträde får endast tillträdas av servicepersonal med ett speciellt verktyg, lås och nyckel, eller annan säkerhetsanordning, och kontrolleras av den auktoritet som ansvarar för området.

Qualified Personnel Warning



WARNING: Only trained and qualified personnel should install or replace the device.

Waarschuwing Installatie en reparaties mogen uitsluitend door getraind en bevoegd personeel uitgevoerd worden.

Varoitus Ainoastaan koulutettu ja pätevä henkilökunta saa asentaa tai vaihtaa tämän laitteen.

Avertissement Tout installation ou remplacement de l'appareil doit être réalisé par du personnel qualifié et compétent.

Warnung Gerät nur von geschultem, qualifiziertem Personal installieren oder auswechseln lassen.

Avvertenza Solo personale addestrato e qualificato deve essere autorizzato ad installare o sostituire questo apparecchio.

Advarsel Kun kvalifisert personell med riktig opplæring bør montere eller bytte ut dette utstyret.

Aviso Este equipamento deverá ser instalado ou substituído apenas por pessoal devidamente treinado e qualificado.

¡Atención! Estos equipos deben ser instalados y reemplazados exclusivamente por personal técnico adecuadamente preparado y capacitado.

Varning! Denna utrustning ska endast installeras och bytas ut av utbildad och kvalificerad personal.

Prevention of Electrostatic Discharge Damage

Device components that are shipped in antistatic bags are sensitive to damage from static electricity. Some components can be impaired by voltages as low as 30 V. You can easily generate potentially damaging static voltages whenever you handle plastic or foam packing material or if you move components across plastic or carpets. Observe the following guidelines to minimize the potential for electrostatic discharge (ESD) damage, which can cause intermittent or complete component failures:

- Always use an ESD wrist strap when you are handling components that are subject to ESD damage, and make sure that it is in direct contact with your skin.

If a grounding strap is not available, hold the component in its antistatic bag (see [Figure 17 on page 57](#)) in one hand and touch the exposed, bare metal of the device with the other hand immediately before inserting the component into the device.



WARNING: For safety, periodically check the resistance value of the ESD grounding strap. The measurement must be in the range 1 through 10 Mohms.

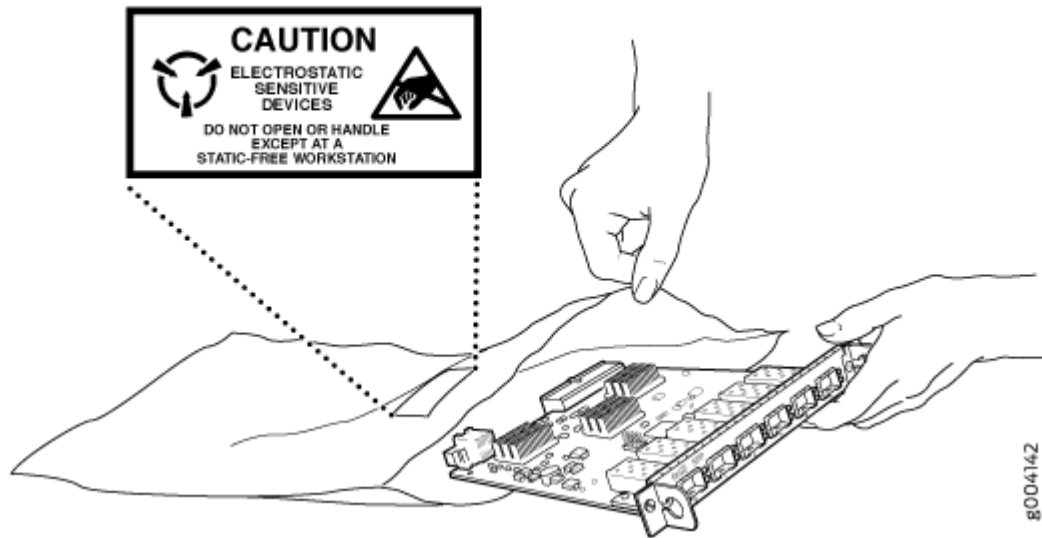
Avertissement Par mesure de sécurité, vérifiez régulièrement la résistance du bracelet antistatique. Cette valeur doit être comprise entre 1 et 10 mégohms (Mohms).

- When handling any component that is subject to ESD damage and that is removed from the device, make sure the equipment end of your ESD wrist strap is attached to the ESD point on the chassis.

If no grounding strap is available, touch the exposed, bare metal of the device to ground yourself before handling the component.

- Avoid contact between the component that is subject to ESD damage and your clothing. ESD voltages emitted from clothing can damage components.
- When removing or installing a component that is subject to ESD damage, always place it component-side up on an antistatic surface, in an antistatic card rack, or in an antistatic bag (see [Figure 17 on page 57](#)). If you are returning a component, place it in an antistatic bag before packing it.

Figure 17: Placing a Component into an Antistatic Bag



CAUTION: ANSI/TIA/EIA-568 cables such as Category 5e and Category 6 can get electrostatically charged. To dissipate this charge, always ground the cables to a suitable and safe earth ground before connecting them to the system.

Attention Les câbles ANSI/TIA/EIA-568, par exemple Cat 5e et Cat 6, peuvent emmagasiner des charges électrostatiques. Pour évacuer ces charges, reliez toujours les câbles à une prise de terre adaptée avant de les raccorder au système.

Warning Statement for Norway and Sweden



WARNING: The equipment must be connected to an earthed mains socket-outlet.

Advarsel Apparatet skal kobles til en jordet stikkontakt.

Varning! Apparaten skall anslutas till jordat nätuttag.

Fire Safety Requirements

IN THIS SECTION

- [Fire Suppression | 58](#)
- [Fire Suppression Equipment | 58](#)

In the event of a fire emergency, the safety of people is the primary concern. You should establish procedures for protecting people in the event of a fire emergency, provide safety training, and properly provision fire-control equipment and fire extinguishers.

In addition, you should establish procedures to protect your equipment in the event of a fire emergency. Juniper Networks products should be installed in an environment suitable for electronic equipment. We recommend that fire suppression equipment be available in the event of a fire in the vicinity of the equipment and that all local fire, safety, and electrical codes and ordinances be observed when you install and operate your equipment.

Fire Suppression

In the event of an electrical hazard or an electrical fire, you should first turn power off to the equipment at the source. Then use a Type C fire extinguisher, which uses noncorrosive fire retardants, to extinguish the fire.

Fire Suppression Equipment

Type C fire extinguishers, which use noncorrosive fire retardants such as carbon dioxide and Halotron™, are most effective for suppressing electrical fires. Type C fire extinguishers displace oxygen from the point of combustion to eliminate the fire. For extinguishing fire on or around equipment that draws air from the environment for cooling, you should use this type of inert oxygen displacement extinguisher instead of an extinguisher that leaves residues on equipment.

Do not use multipurpose Type ABC chemical fire extinguishers (dry chemical fire extinguishers). The primary ingredient in these fire extinguishers is monoammonium phosphate, which is very sticky and

difficult to clean. In addition, in the presence of minute amounts of moisture, monoammonium phosphate can become highly corrosive and corrodes most metals.

Any equipment in a room in which a chemical fire extinguisher has been discharged is subject to premature failure and unreliable operation. The equipment is considered to be irreparably damaged.

NOTE: To keep warranties effective, do not use a dry chemical fire extinguisher to control a fire at or near a Juniper Networks device. If a dry chemical fire extinguisher is used, the unit is no longer eligible for coverage under a service agreement.

We recommend that you dispose of any irreparably damaged equipment in an environmentally responsible manner.

Installation Instructions Warning



WARNING: Read the installation instructions before you connect the device to a power source.

Waarschuwing Raadpleeg de installatie-aanwijzingen voordat u het systeem met de voeding verbindt.

Varoitus Lue asennusohjeet ennen järjestelmän yhdistämistä virtälähteeseen.

Avertissement Avant de brancher le système sur la source d'alimentation, consulter les directives d'installation.

Warnung Lesen Sie die Installationsanweisungen, bevor Sie das System an die Stromquelle anschließen.

Avvertenza Consultare le istruzioni di installazione prima di collegare il sistema all'alimentatore.

Advarsel Les installasjonsinstruksjonene før systemet kobles til strømkilden.

Aviso Leia as instruções de instalação antes de ligar o sistema à sua fonte de energia.

¡Atención! Ver las instrucciones de instalación antes de conectar el sistema a la red de alimentación.

Varning! Läs installationsanvisningarna innan du kopplar systemet till dess strömförsörjningsenhet.

Chassis Lifting Guidelines for the JSA3800 Appliance

The weight of a fully loaded JSA3800 appliance is approximately 37 lb (16.8 kg). Observe the following guidelines for lifting and moving the JSA3800 appliance:

- Before installing JSA3800, read the guidelines in [General Safety Guidelines and Warnings](#).
- Before lifting or moving the JSA3800 appliance, disconnect all external cables.
- As when lifting any heavy object, lift most of the weight with your legs rather than your back. Keep your knees bent and your back relatively straight and avoid twisting your body as you lift. Balance the load evenly and be sure that your footing is solid.

RELATED DOCUMENTATION

[Ramp Warning | 60](#)

[Installation Instructions Warning | 59](#)

[Rack-Mounting and Cabinet-Mounting Warnings | 61](#)

[Grounded Equipment Warning | 65](#)

[Maintenance and Operational Safety Guidelines and Warnings | 70](#)

Ramp Warning



WARNING: When installing the device, do not use a ramp inclined at more than 10 degrees.

Waarschuwing Gebruik een oprijplaat niet onder een hoek van meer dan 10 graden.

Varoitus Älä käytä sellaista kaltevaa pintaa, jonka kaltevuus ylittää 10 astetta.

Avertissement Ne pas utiliser une rampe dont l'inclinaison est supérieure à 10 degrés.

Warnung Keine Rampen mit einer Neigung von mehr als 10 Grad verwenden.

Avvertenza Non usare una rampa con pendenza superiore a 10 gradi.

Advarsel Bruk aldri en rampe som heller mer enn 10 grader.

Aviso Não utilize uma rampa com uma inclinação superior a 10 graus.

¡Atención! No usar una rampa inclinada más de 10 grados.

Varning! Använd inte ramp med en lutning på mer än 10 grader.

Rack-Mounting and Cabinet-Mounting Warnings

Ensure that the rack or cabinet in which the device is installed is evenly and securely supported. Uneven mechanical loading could lead to a hazardous condition.



WARNING: To prevent bodily injury when mounting or servicing the device in a rack, take the following precautions to ensure that the system remains stable. The following directives help maintain your safety:

- Install the device in a rack that is secured to the building structure.
- Mount the device at the bottom of the rack if it is the only unit in the rack.
- When mounting the device on a partially filled rack, load the rack from the bottom to the top, with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing equipment, install the stabilizers before mounting or servicing the device in the rack.

Waarschuwing Om lichamelijk letsel te voorkomen wanneer u dit toestel in een rek monteert of het daar een servicebeurt geeft, moet u speciale voorzorgsmaatregelen nemen om ervoor te zorgen dat het toestel stabiel blijft. De onderstaande richtlijnen worden verstrekt om uw veiligheid te verzekeren:

- De Juniper Networks switch moet in een stellage worden geïnstalleerd die aan een bouwsel is verankerd.
- Dit toestel dient onderaan in het rek gemonteerd te worden als het toestel het enige in het rek is.
- Wanneer u dit toestel in een gedeeltelijk gevuld rek monteert, dient u het rek van onderen naar boven te laden met het zwaarste onderdeel onderaan in het rek.

- Als het rek voorzien is van stabiliseringshulpmiddelen, dient u de stabilisatoren te monteren voordat u het toestel in het rek monteert of het daar een servicebeurt geeft.

Varoitus Kun laite asetetaan telineeseen tai huolletaan sen ollessa telineessä, on noudatettava erityisiä varotoimia järjestelmän vakavuuden säilyttämiseksi, jotta vältetään loukkaantumiselta. Noudata seuraavia turvallisuusohjeita:

- Juniper Networks switch on asennettava telineeseen, joka on kiinnitetty rakennukseen.
- Jos telineessä ei ole muita laitteita, aseta laite telineen alaosaan.
- Jos laite asetetaan osaksi täytettyyn telineeseen, aloita kuormittaminen sen alaosasta kaikkein raskaimmalla esineellä ja siirry sitten sen yläosaan.
- Jos telinettä varten on vakaimet, asenna ne ennen laitteen asettamista telineeseen tai sen huoltamista siinä.

Avertissement Pour éviter toute blessure corporelle pendant les opérations de montage ou de réparation de cette unité en casier, il convient de prendre des précautions spéciales afin de maintenir la stabilité du système. Les directives ci-dessous sont destinées à assurer la protection du personnel:

- Le rack sur lequel est monté le Juniper Networks switch doit être fixé à la structure du bâtiment.
- Si cette unité constitue la seule unité montée en casier, elle doit être placée dans le bas.
- Si cette unité est montée dans un casier partiellement rempli, charger le casier de bas en haut en plaçant l'élément le plus lourd dans le bas.
- Si le casier est équipé de dispositifs stabilisateurs, installer les stabilisateurs avant de monter ou de réparer l'unité en casier.

Warnung Zur Vermeidung von Körperverletzung beim Anbringen oder Warten dieser Einheit in einem Gestell müssen Sie besondere Vorkehrungen treffen, um sicherzustellen, daß das System stabil bleibt. Die folgenden Richtlinien sollen zur Gewährleistung Ihrer Sicherheit dienen:

- Der Juniper Networks switch muß in einem Gestell installiert werden, das in der Gebäudestruktur verankert ist.

- Wenn diese Einheit die einzige im Gestell ist, sollte sie unten im Gestell angebracht werden.
- Bei Anbringung dieser Einheit in einem zum Teil gefüllten Gestell ist das Gestell von unten nach oben zu laden, wobei das schwerste Bauteil unten im Gestell anzubringen ist.
- Wird das Gestell mit Stabilisierungszubehör geliefert, sind zuerst die Stabilisatoren zu installieren, bevor Sie die Einheit im Gestell anbringen oder sie warten.

Avvertenza Per evitare infortuni fisici durante il montaggio o la manutenzione di questa unità in un supporto, occorre osservare speciali precauzioni per garantire che il sistema rimanga stabile. Le seguenti direttive vengono fornite per garantire la sicurezza personale:

- Il Juniper Networks switch deve essere installato in un telaio, il quale deve essere fissato alla struttura dell'edificio.
- Questa unità deve venire montata sul fondo del supporto, se si tratta dell'unica unità da montare nel supporto.
- Quando questa unità viene montata in un supporto parzialmente pieno, caricare il supporto dal basso all'alto, con il componente più pesante sistemato sul fondo del supporto.
- Se il supporto è dotato di dispositivi stabilizzanti, installare tali dispositivi prima di montare o di procedere alla manutenzione dell'unità nel supporto.

Advarsel Unngå fysiske skader under montering eller reparasjonsarbeid på denne enheten når den befinner seg i et kabinett. Vær nøye med at systemet er stabilt. Følgende retningslinjer er gitt for å verne om sikkerheten:

- Juniper Networks switch må installeres i et stativ som er forankret til bygningsstrukturen.
- Denne enheten bør monteres nederst i kabinettet hvis dette er den eneste enheten i kabinettet.
- Ved montering av denne enheten i et kabinett som er delvis fylt, skal kabinettet lastes fra bunnen og opp med den tyngste komponenten nederst i kabinettet.
- Hvis kabinettet er utstyrt med stabiliseringsutstyr, skal stabilisatorene installeres før montering eller utføring av reparasjonsarbeid på enheten i kabinettet.

Aviso Para se prevenir contra danos corporais ao montar ou reparar esta unidade numa estante, deverá tomar precauções especiais para se certificar de que o sistema possui um suporte estável. As seguintes directrizes ajudá-lo-ão a efectuar o seu trabalho com segurança:

- O Juniper Networks switch deverá ser instalado numa prateleira fixa à estrutura do edifício.
- Esta unidade deverá ser montada na parte inferior da estante, caso seja esta a única unidade a ser montada.
- Ao montar esta unidade numa estante parcialmente ocupada, coloque os itens mais pesados na parte inferior da estante, arrumando-os de baixo para cima.
- Se a estante possuir um dispositivo de estabilização, instale-o antes de montar ou reparar a unidade.

¡Atención! Para evitar lesiones durante el montaje de este equipo sobre un bastidor, oerriormente durante su mantenimiento, se debe poner mucho cuidado en que el sistema quede bien estable. Para garantizar su seguridad, proceda según las siguientes instrucciones:

- El Juniper Networks switch debe instalarse en un bastidor fijado a la estructura del edificio.
- Colocar el equipo en la parte inferior del bastidor, cuando sea la única unidad en el mismo.
- Cuando este equipo se vaya a instalar en un bastidor parcialmente ocupado, comenzar la instalación desde la parte inferior hacia la superior colocando el equipo más pesado en la parte inferior.
- Si el bastidor dispone de dispositivos estabilizadores, instalar éstos antes de montar o proceder al mantenimiento del equipo instalado en el bastidor.

Varning! För att undvika kroppsskada när du installerar eller utför underhållsarbete på denna enhet på en ställning måste du vidta särskilda försiktighetsåtgärder för att försäkra dig om att systemet står stadigt. Följande riktlinjer ges för att trygga din säkerhet:

- Juniper Networks switch måste installeras i en ställning som är förankrad i byggnadens struktur.

- Om denna enhet är den enda enheten på ställningen skall den installeras längst ned på ställningen.
- Om denna enhet installeras på en delvis fylld ställning skall ställningen fyllas nedifrån och upp, med de tyngsta enheterna längst ned på ställningen.
- Om ställningen är försedd med stabiliseringsdon skall dessa monteras fast innan enheten installeras eller underhålls på ställningen.

Grounded Equipment Warning



WARNING: This device must be properly grounded at all times. Follow the instructions in this guide to properly ground the device to earth.

Waarschuwing Dit apparaat moet altijd goed geaard zijn. Volg de instructies in deze gids om het apparaat goed te aarden.

Varoitus Laitteen on oltava pysyvästi maadoitettu. Maadoita laite asianmukaisesti noudattamalla tämän oppaan ohjeita.

Avertissement L'appareil doit être correctement mis à la terre à tout moment. Suivez les instructions de ce guide pour correctement mettre l'appareil à la terre.

Warnung Das Gerät muss immer ordnungsgemäß geerdet sein. Befolgen Sie die Anweisungen in dieser Anleitung, um das Gerät ordnungsgemäß zu erden.

Avvertenza Questo dispositivo deve sempre disporre di una connessione a massa. Seguire le istruzioni indicate in questa guida per connettere correttamente il dispositivo a massa.

Advarsel Denne enheten på jordes skikkelig hele tiden. Følg instruksjonene i denne veiledningen for å jorde enheten.

Aviso Este equipamento deverá estar ligado à terra. Siga las instrucciones en esta guía para conectar correctamente este dispositivo a tierra.

¡Atención! Este dispositivo debe estar correctamente conectado a tierra en todo momento. Siga las instrucciones en esta guía para conectar correctamente este dispositivo a tierra.

Warning! Den här enheten måste vara ordentligt jordad. Följ instruktionerna i den här guiden för att jorda enheten ordentligt.

Laser and LED Safety Guidelines and Warnings

IN THIS SECTION

- [General Laser Safety Guidelines | 66](#)
- [Class 1 Laser Product Warning | 67](#)
- [Class 1 LED Product Warning | 67](#)
- [Laser Beam Warning | 68](#)

Juniper Networks devices are equipped with laser transmitters, which are considered a Class 1 Laser Product by the U.S. Food and Drug Administration and are evaluated as a Class 1 Laser Product per IEC/EN 60825-1 requirements.

Observe the following guidelines and warnings:

General Laser Safety Guidelines

When working around ports that support optical transceivers, observe the following safety guidelines to prevent eye injury:

- Do not look into unterminated ports or at fibers that connect to unknown sources.
- Do not examine unterminated optical ports with optical instruments.
- Avoid direct exposure to the beam.



LASER WARNING: Unterminated optical connectors can emit invisible laser radiation. The lens in the human eye focuses all the laser power on the retina, so focusing the

eye directly on a laser source—even a low-power laser—could permanently damage the eye.

Avertissement Les connecteurs à fibre optique sans terminaison peuvent émettre un rayonnement laser invisible. Le cristallin de l'œil humain faisant converger toute la puissance du laser sur la rétine, toute focalisation directe de l'œil sur une source laser, —même de faible puissance—, peut entraîner des lésions oculaires irréversibles.

Class 1 Laser Product Warning



LASER WARNING: Class 1 laser product.

Waarschuwing Klasse-1 laser produkt.

Varoitus Luokan 1 lasertuote.

Avertissement Produit laser de classe I.

Warnung Laserprodukt der Klasse 1.

Avvertenza Prodotto laser di Classe 1.

Advarsel Laserprodukt av klasse 1.

Aviso Produto laser de classe 1.

¡Atención! Producto láser Clase I.

Varning! Laserprodukt av klass 1.

Class 1 LED Product Warning



LASER WARNING: Class 1 LED product.

Waarschuwing Klasse 1 LED-product.

Varoitus Luokan 1 valodiodituote.

Avertissement Alarme de produit LED Class I.

Warnung Class 1 LED-Produktwarnung.

Avvertenza Avvertenza prodotto LED di Classe 1.

Advarsel LED-produkt i klasse 1.

Aviso Produto de classe 1 com LED.

¡Atención! Aviso sobre producto LED de Clase 1.

Varning! Lysdiodprodukt av klass 1.

Laser Beam Warning



LASER WARNING: Do not stare into the laser beam or view it directly with optical instruments.

Waarschuwing Niet in de straal staren of hem rechtstreeks bekijken met optische instrumenten.

Varoitus Älä katso säteeseen äläkä tarkastele sitä suoraan optisen laitteen avulla.

Avertissement Ne pas fixer le faisceau des yeux, ni l'observer directement à l'aide d'instruments optiques.

Warnung Nicht direkt in den Strahl blicken und ihn nicht direkt mit optischen Geräten prüfen.

Avvertenza Non fissare il raggio con gli occhi né usare strumenti ottici per osservarlo direttamente.

Advarsel Stirr eller se ikke direkte p strlen med optiske instrumenter.

Aviso Não olhe fixamente para o raio, nem olhe para ele directamente com instrumentos ópticos.

¡Atención! No mirar fijamente el haz ni observarlo directamente con instrumentos ópticos.

Varning! Rikta inte blicken in mot strålen och titta inte direkt på den genom optiska instrument.

Radiation from Open Port Apertures Warning



LASER WARNING: Because invisible radiation might be emitted from the aperture of the port when no fiber cable is connected, avoid exposure to radiation and do not stare into open apertures.

Waarschuwing Aangezien onzichtbare straling vanuit de opening van de poort kan komen als er geen fiberkabel aangesloten is, dient blootstelling aan straling en het kijken in open openingen vermeden te worden.

Varoitus Koska portin aukosta voi emittoitua näkymätöntä säteilyä, kun kuitukaapelia ei ole kytkettynä, vältä säteilylle altistumista äläkä katso avoimiin aukkoihin.

Avertissement Des radiations invisibles à l'il nu pouvant traverser l'ouverture du port lorsqu'aucun câble en fibre optique n'y est connecté, il est recommandé de ne pas regarder fixement l'intérieur de ces ouvertures.

Warnung Aus der Port-Öffnung können unsichtbare Strahlen emittieren, wenn kein Glasfaserkabel angeschlossen ist. Vermeiden Sie es, sich den Strahlungen auszusetzen, und starren Sie nicht in die Öffnungen!

Avvertenza Quando i cavi in fibra non sono inseriti, radiazioni invisibili possono essere emesse attraverso l'apertura della porta. Evitate di esporvi alle radiazioni e non guardate direttamente nelle aperture.

Advarsel Unngå utsettelse for stråling, og stirr ikke inn i åpninger som er åpne, fordi usynlig stråling kan emitteres fra portens åpning når det ikke er tilkoblet en fiberkabel.

Aviso Dada a possibilidade de emissão de radiação invisível através do orifício da via de acesso, quando esta não tiver nenhum cabo de fibra conectado, deverá evitar a exposição à radiação e não deverá olhar fixamente para orifícios que se encontrarem a descoberto.

¡Atención! Debido a que la apertura del puerto puede emitir radiación invisible cuando no existe un cable de fibra conectado, evite mirar directamente a las aperturas para no exponerse a la radiación.

Varning! Osynlig strålning kan avges från en portöppning utan ansluten fiberkabel och du bör därför undvika att bli utsatt för strålning genom att inte stirra in i oskyddade öppningar.

Maintenance and Operational Safety Guidelines and Warnings

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While performing the maintenance activities for devices, observe the following guidelines and warnings:

Battery Handling Warning



WARNING: Replacing a battery incorrectly might result in an explosion. Replace a battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Waarschuwing Er is ontplofingsgevaar als de batterij verkeerd vervangen wordt. Vervang de batterij slechts met hetzelfde of een equivalent type dat door de fabrikant aanbevolen is. Gebruikte batterijen dienen overeenkomstig fabrieksvoorschriften weggeworpen te worden.

Varoitus Räjähdyksen vaara, jos akku on vaihdettu väärään akkuun. Käytä vaihtamiseen ainoastaan saman- tai vastaaventyypistä akkua, joka on valmistajan suosittama. Hävitä käytetyt akut valmistajan ohjeiden mukaan.

Avertissement Danger d'explosion si la pile n'est pas remplacée correctement. Ne la remplacer que par une pile de type semblable ou équivalent, recommandée par le fabricant. Jeter les piles usagées conformément aux instructions du fabricant.

Warnung Bei Einsetzen einer falschen Batterie besteht Explosionsgefahr. Ersetzen Sie die Batterie nur durch den gleichen oder vom Hersteller empfohlenen Batterietyp. Entsorgen Sie die benutzten Batterien nach den Anweisungen des Herstellers.

Advarsel Det kan være fare for eksplosjon hvis batteriet skiftes på feil måte. Skift kun med samme eller tilsvarende type som er anbefalt av produsenten. Kasser brukte batterier i henhold til produsentens instruksjoner.

Avvertenza Pericolo di esplosione se la batteria non è installata correttamente. Sostituire solo con una di tipo uguale o equivalente, consigliata dal produttore. Eliminare le batterie usate secondo le istruzioni del produttore.

Aviso Existe perigo de explosão se a bateria for substituída incorrectamente. Substitua a bateria por uma bateria igual ou de um tipo equivalente recomendado pelo fabricante. Destrua as baterias usadas conforme as instruções do fabricante.

¡Atención! Existe peligro de explosión si la batería se reemplaza de manera incorrecta. Reemplazar la batería EXclusivamente con el mismo tipo o el equivalente recomendado por el fabricante. Desechar las baterías gastadas según las instrucciones del fabricante.

Varning! Explosionsfara vid felaktigt batteribyte. Ersätt endast batteriet med samma batterityp som rekommenderas av tillverkaren eller motsvarande. Följ tillverkarens anvisningar vid kassering av använda batterier.

Jewelry Removal Warning



WARNING: Before working on equipment that is connected to power lines, remove jewelry, including rings, necklaces, and watches. Metal objects heat up when connected to power and ground and can cause serious burns or can be welded to the terminals.

Waarschuwing Alvorens aan apparatuur te werken die met elektrische leidingen is verbonden, sieraden (inclusief ringen, kettingen en horloges) verwijderen. Metalen voorwerpen worden warm wanneer ze met stroom en aarde zijn verbonden, en kunnen ernstige brandwonden veroorzaken of het metalen voorwerp aan de aansluitklemmen lassen.

Varoitus Ennen kuin työskentelet voimavirtajohtoihin kytkettyjen laitteiden parissa, ota pois kaikki korut (sormukset, kaulakorut ja kellot mukaan lukien). Metalliesineet

kuumenevat, kun ne ovat yhteydessä sähkövirran ja maan kanssa, ja ne voivat aiheuttaa vakavia palovammoja tai hitsata metalliesineet kiinni liitäntänapoihin.

Avertissement Avant d'accéder à cet équipement connecté aux lignes électriques, ôter tout bijou (anneaux, colliers et montres compris). Lorsqu'ils sont branchés à l'alimentation et reliés à la terre, les objets métalliques chauffent, ce qui peut provoquer des blessures graves ou souder l'objet métallique aux bornes.

Warnung Vor der Arbeit an Geräten, die an das Netz angeschlossen sind, jeglichen Schmuck (einschließlich Ringe, Ketten und Uhren) abnehmen. Metallgegenstände erhitzen sich, wenn sie an das Netz und die Erde angeschlossen werden, und können schwere Verbrennungen verursachen oder an die Anschlußklemmen angeschweißt werden.

Avvertenza Prima di intervenire su apparecchiature collegate alle linee di alimentazione, togliersi qualsiasi monile (inclusi anelli, collane, braccialetti ed orologi). Gli oggetti metallici si riscaldano quando sono collegati tra punti di alimentazione e massa: possono causare ustioni gravi oppure il metallo può saldarsi ai terminali.

Advarsel Fjern alle smykker (inkludert ringer, halskjeder og klokker) før du skal arbeide på utstyr som er koblet til kraftledninger. Metallgjenstander som er koblet til kraftledninger og jord blir svært varme og kan forårsake alvorlige brannskader eller smelte fast til polene.

Aviso Antes de trabalhar em equipamento que esteja ligado a linhas de corrente, retire todas as jóias que estiver a usar (incluindo anéis, fios e relógios). Os objectos metálicos aquecerão em contacto com a corrente e em contacto com a ligação à terra, podendo causar queimaduras graves ou ficarem soldados aos terminais.

¡Atención! Antes de operar sobre equipos conectados a líneas de alimentación, quitarse las joyas (incluidos anillos, collares y relojes). Los objetos de metal se calientan cuando se conectan a la alimentación y a tierra, lo que puede ocasionar quemaduras graves o que los objetos metálicos queden soldados a los bornes.

Varning! Tag av alla smycken (inklusive ringar, halsband och armbandsur) innan du arbetar på utrustning som är kopplad till kraftledningar. Metallobjekt hettas upp när de kopplas ihop med ström och jord och kan förorsaka allvarliga brännskador; metallobjekt kan också sammansvetsas med kontakterna.

Lightning Activity Warning



WARNING: Do not work on the system or connect or disconnect cables during periods of lightning activity.

Waarschuwing Tijdens onweer dat gepaard gaat met bliksem, dient u niet aan het systeem te werken of kabels aan te sluiten of te ontkoppelen.

Varoitus Älä työskentele järjestelmän parissa äläkä yhdistä tai irrota kaapeleita ukkosilmalla.

Avertissement Ne pas travailler sur le système ni brancher ou débrancher les câbles pendant un orage.

Warnung Arbeiten Sie nicht am System und schließen Sie keine Kabel an bzw. trennen Sie keine ab, wenn es gewittert.

Avvertenza Non lavorare sul sistema o collegare oppure scollegare i cavi durante un temporale con fulmini.

Advarsel Utfør aldri arbeid på systemet, eller koble kabler til eller fra systemet når det tordner eller lyner.

Aviso Não trabalhe no sistema ou ligue e desligue cabos durante períodos de mau tempo (trovoada).

¡Atención! No operar el sistema ni conectar o desconectar cables durante el transcurso de descargas eléctricas en la atmósfera.

Varning! Vid åska skall du aldrig utföra arbete på systemet eller ansluta eller koppla loss kablar.

Operating Temperature Warning



WARNING: To prevent the device from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature. To prevent airflow restriction, allow at least 6 in. (15.2 cm) of clearance around the ventilation openings.

Waarschuwing Om te voorkomen dat welke switch van de Juniper Networks router dan ook oververhit raakt, dient u deze niet te bedienen op een plaats waar de maximale aanbevolen omgevingstemperatuur van 40° C wordt overschreden. Om te voorkomen

dat de luchtstroom wordt beperkt, dient er minstens 15,2 cm speling rond de ventilatie-openingen te zijn.

Varoitus Ettei Juniper Networks switch-sarjan reititin ylikuumentuisi, sitä ei saa käyttää tilassa, jonka lämpötila ylittää korkeimman suositellun ympäristölämpötilan 40° C. Ettei ilmanvaihto estyisi, tuuletusaukkojen ympärille on jätettävä ainakin 15,2 cm tilaa.

Avertissement Pour éviter toute surchauffe des routeurs de la gamme Juniper Networks switch, ne l'utilisez pas dans une zone où la température ambiante est supérieure à 40° C. Pour permettre un flot d'air constant, dégagez un espace d'au moins 15,2 cm autour des ouvertures de ventilations.

Warnung Um einen Router der switch vor Überhitzung zu schützen, darf dieser nicht in einer Gegend betrieben werden, in der die Umgebungstemperatur das empfohlene Maximum von 40° C überschreitet. Um Lüftungsverschluß zu verhindern, achten Sie darauf, daß mindestens 15,2 cm lichter Raum um die Lüftungsöffnungen herum frei bleibt.

Avvertenza Per evitare il surriscaldamento dei switch, non adoperateli in un locale che ecceda la temperatura ambientale massima di 40° C. Per evitare che la circolazione dell'aria sia impedita, lasciate uno spazio di almeno 15.2 cm di fronte alle aperture delle ventole.

Advarsel Unngå overoppheting av eventuelle rutere i Juniper Networks switch Disse skal ikke brukes på steder der den anbefalte maksimale omgivelsestemperaturen overstiger 40° C (104° F). Sørg for at klaringen rundt lufteåpningene er minst 15,2 cm (6 tommer) for å forhindre nedsatt luftsirkulasjon.

Aviso Para evitar o sobreaquecimento do encaminhador Juniper Networks switch, não utilize este equipamento numa área que exceda a temperatura máxima recomendada de 40° C. Para evitar a restrição à circulação de ar, deixe pelo menos um espaço de 15,2 cm à volta das aberturas de ventilação.

¡Atención! Para impedir que un encaminador de la serie Juniper Networks switch se recaliente, no lo haga funcionar en un área en la que se supere la temperatura ambiente máxima recomendada de 40° C. Para impedir la restricción de la entrada de aire, deje un espacio mínimo de 15,2 cm alrededor de las aperturas para ventilación.

Varning! Förhindra att en Juniper Networks switch överhettas genom att inte använda den i ett område där den maximalt rekommenderade omgivningstemperaturen på 40° C överskrids. Förhindra att luftcirkulationen inskränks genom att se till att det finns fritt utrymme på minst 15,2 cm omkring ventilationsöppningarna.

Product Disposal Warning



WARNING: Disposal of this device must be handled according to all national laws and regulations.

Waarschuwing Dit produkt dient volgens alle landelijke wetten en voorschriften te worden afgedankt.

Varoitus Tämän tuotteen lopullisesta hävittämisestä tulee huolehtia kaikkia valtakunnallisia lakeja ja säännöksiä noudattaen.

Avertissement La mise au rebut définitive de ce produit doit être effectuée conformément à toutes les lois et réglementations en vigueur.

Warnung Dieses Produkt muß den geltenden Gesetzen und Vorschriften entsprechend entsorgt werden.

Avvertenza L'eliminazione finale di questo prodotto deve essere eseguita osservando le normative italiane vigenti in materia

Advarsel Endelig disponering av dette produktet må skje i henhold til nasjonale lover og forskrifter.

Aviso A descartagem final deste produto deverá ser efectuada de acordo com os regulamentos e a legislação nacional.

¡Atención! El desecho final de este producto debe realizarse según todas las leyes y regulaciones nacionales

Varning! Slutlig kassering av denna produkt bör skötas i enlighet med landets alla lagar och föreskrifter.

Action to Take After an Electrical Accident

If an electrical accident results in an injury, take the following actions in this order:

1. Use caution. Be aware of potentially hazardous conditions that could cause further injury.
2. Disconnect power from the device.
3. If possible, send another person to get medical aid. Otherwise, assess the condition of the victim, and then call for help.

General Electrical Safety Guidelines and Warnings



WARNING: Certain ports on the device are designed for use as intrabuilding (within-the-building) interfaces only (Type 2 or Type 4 ports as described in *GR-1089-CORE*) and require isolation from the exposed outside plant (OSP) cabling. To comply with NEBS (Network Equipment-Building System) requirements and protect against lightning surges and commercial power disturbances, the intrabuilding ports *must not* be metalically connected to interfaces that connect to the OSP or its wiring. The intrabuilding ports on the device are suitable for connection to intrabuilding or unexposed wiring or cabling only. The addition of primary protectors is not sufficient protection for connecting these interfaces metalically to OSP wiring.

Avertissement Certains ports de l'appareil sont destinés à un usage en intérieur uniquement (ports Type 2 ou Type 4 tels que décrits dans le document *GR-1089-CORE*) et doivent être isolés du câblage de l'installation extérieure exposée. Pour respecter les exigences NEBS et assurer une protection contre la foudre et les perturbations de tension secteur, les ports pour intérieur *ne doivent pas* être raccordés physiquement aux interfaces prévues pour la connexion à l'installation extérieure ou à son câblage. Les ports pour intérieur de l'appareil sont réservés au raccordement de câbles pour intérieur ou non exposés uniquement. L'ajout de protections ne constitue pas une précaution suffisante pour raccorder physiquement ces interfaces au câblage de l'installation extérieure.



CAUTION: Before removing or installing components of a device, connect an electrostatic discharge (ESD) grounding strap to an ESD point and wrap and fasten the other end of the strap around your bare wrist. Failure to use an ESD grounding strap could result in damage to the device.

Attention Avant de retirer ou d'installer des composants d'un appareil, raccordez un bracelet antistatique à un point de décharge électrostatique et fixez le bracelet à votre poignet nu. L'absence de port d'un bracelet antistatique pourrait provoquer des dégâts sur l'appareil.

- Install the device in compliance with the following local, national, and international electrical codes:
 - United States—National Fire Protection Association (NFPA 70), United States National Electrical Code.
 - Other countries—International Electromechanical Commission (IEC) 60364, Part 1 through Part 7.
 - Evaluated to the TN power system.

- Canada—Canadian Electrical Code, Part 1, CSA C22.1.
- Suitable for installation in Information Technology Rooms in accordance with Article 645 of the National Electrical Code and NFPA 75.

Peut être installé dans des salles de matériel de traitement de l'information conformément à l'article 645 du National Electrical Code et à la NFPA 75.

- Locate the emergency power-off switch for the room in which you are working so that if an electrical accident occurs, you can quickly turn off the power.
- Make sure that you clean grounding surface and give them a bright finish before making grounding connections.
- Do not work alone if potentially hazardous conditions exist anywhere in your workspace.
- Never assume that power is disconnected from a circuit. Always check the circuit before starting to work.
- Carefully look for possible hazards in your work area, such as moist floors, ungrounded power extension cords, and missing safety grounds.
- Operate the device within marked electrical ratings and product usage instructions.
- To ensure that the device and peripheral equipment function safely and correctly, use the cables and connectors specified for the attached peripheral equipment, and make certain they are in good condition.

You can remove and replace many device components without powering off or disconnecting power to the device, as detailed elsewhere in the hardware documentation for this device. Never install equipment that appears to be damaged.

AC Power Electrical Safety Guidelines

The following electrical safety guidelines apply to AC-powered devices:

- Note the following warnings printed on the device:

“CAUTION: THIS UNIT HAS MORE THAN ONE POWER SUPPLY CORD. DISCONNECT ALL POWER SUPPLY CORDS BEFORE SERVICING TO AVOID ELECTRIC SHOCK.”

“ATTENTION: CET APPAREIL COMPORTE PLUS D'UN CORDON D'ALIMENTATION. AFIN DE PRÉVENIR LES CHOCS ÉLECTRIQUES, DÉBRANCHER TOUT CORDON D'ALIMENTATION AVANT DE FAIRE LE DÉPANNAGE.”

- AC-powered devices are shipped with a three-wire electrical cord with a grounding-type plug that fits only a grounding-type power outlet. Do not circumvent this safety feature. Equipment grounding must comply with local and national electrical codes.
- You must provide an external certified circuit breaker (2-pole circuit breaker or 4-pole circuit breaker based on your device) rated minimum 20 A in the building installation.
- The power cord serves as the main disconnecting device for the AC-powered device. The socket outlet must be near the AC-powered device and be easily accessible.
- For devices that have more than one power supply connection, you must ensure that all power connections are fully disconnected so that power to the device is completely removed to prevent electric shock. To disconnect power, unplug all power cords (one for each power supply).

Power Cable Warning (Japanese)

WARNING: The attached power cable is only for this product. Do not use the cable for another product.

注意

附属の電源コードセットはこの製品専用です。
他の電気機器には使用しないでください。

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DC Power Electrical Safety Guidelines

- A DC-powered device is equipped with a DC terminal block that is rated for the power requirements of a maximally configured device.

NOTE: To supply sufficient power, terminate the DC input wiring on a facility DC source that is capable of supplying:

- Minimum of 60 A at -38 VDC

Incorporate an easily accessible disconnect device into the facility wiring. Be sure to connect the ground wire or conduit to a solid office earth ground. A closed loop ring is recommended for terminating the ground conductor at the ground stud.

- Run two wires from the circuit breaker box to a source of 38 VDC.

- A DC-powered device that is equipped with a DC terminal block is intended only for installation in a restricted access location. In the United States, a restricted access area is one in accordance with Articles 110-16, 110-17, and 110-18 of the National Electrical Code ANSI/NFPA 70.

NOTE: Primary overcurrent protection is provided by the building circuit breaker. This breaker must protect against excess currents, short circuits, and earth grounding faults in accordance with NEC ANSI/NFPA 70.

- Ensure that the polarity of the DC input wiring is correct. Under certain conditions, connections with reversed polarity might trip the primary circuit breaker or damage the equipment.
- For personal safety, connect the green and yellow wire to safety (earth) ground at both the device and the supply side of the DC wiring.
- The marked input voltage of -38 VDC for a DC-powered device is the nominal voltage associated with the battery circuit, and any higher voltages are only to be associated with float voltages for the charging function.
- Because the device is a positive ground system, you must connect the positive lead to the terminal labeled RTN, the negative lead to the terminal labeled -38 VDC, and the earth ground to the device grounding points.

AC Power Disconnection Warning



WARNING: Before working on the device or near power supplies, unplug all the power cords from an AC-powered device.

Waarschuwing Voordat u aan een frame of in de nabijheid van voedingen werkt, dient u bij wisselstroom toestellen de stekker van het netsnoer uit het stopcontact te halen.

Varoitus Kytke irti vaihtovirtalaitteiden virtajohto, ennen kuin teet mitään asennuspohjalle tai työskentelet virtalähteiden läheisyydessä.

Avertissement Avant de travailler sur un châssis ou à proximité d'une alimentation électrique, débrancher le cordon d'alimentation des unités en courant alternatif.

Warnung Bevor Sie an einem Chassis oder in der Nähe von Netzgeräten arbeiten, ziehen Sie bei Wechselstromeinheiten das Netzkabel ab bzw.

Avvertenza Prima di lavorare su un telaio o intorno ad alimentatori, scollegare il cavo di alimentazione sulle unità CA.

Advarsel Før det utføres arbeid på kabinettet eller det arbeides i nærheten av strømforsyningsenheter, skal strømledningen trekkes ut på vekselstrømsenheter.

Aviso Antes de trabalhar num chassis, ou antes de trabalhar perto de unidades de fornecimento de energia, desligue o cabo de alimentação nas unidades de corrente alternada.

¡Atención! Antes de manipular el chasis de un equipo o trabajar cerca de una fuente de alimentación, desenchufar el cable de alimentación en los equipos de corriente alterna (CA).

Varning! Innan du arbetar med ett chassi eller nära strömförsörjningsenheter skall du för växelströmsenheter dra ur nätsladden.

DC Power Disconnection Warning



WARNING: Before performing any of the DC power procedures, ensure that power is removed from the DC circuit. To ensure that all power is off, locate the circuit breaker on the panel board that services the DC circuit, switch the circuit breaker to the OFF position, and tape the device handle of the circuit breaker in the OFF position.

Waarschuwing Voordat u een van de onderstaande procedures uitvoert, dient u te controleren of de stroom naar het gelijkstroom circuit uitgeschakeld is. Om u ervan te verzekeren dat alle stroom UIT is geschakeld, kiest u op het schakelbord de stroomverbreker die het gelijkstroom circuit bedient, draait de stroomverbreker naar de UIT positie en plakt de schakelaarhendel van de stroomverbreker met plakband in de UIT positie vast.

Varoitus Varmista, että tasavirtapiirissä ei ole virtaa ennen seuraavien toimenpiteiden suorittamista. Varmistaaksesi, että virta on KATKAISTU täysin, paikanna tasavirrasta huolehtivassa kojetaulussa sijaitseva suojakytkin, käännä suojakytkin KATKAISTU-asentoon ja teippaa suojakytkimen varsi niin, että se pysyy KATKAISTU-asennossa.

Avertissement Avant de pratiquer l'une quelconque des procédures ci-dessous, vérifier que le circuit en courant continu n'est plus sous tension. Pour en être sûr, localiser le disjoncteur situé sur le panneau de service du circuit en courant continu, placer le

disjoncteur en position fermée (OFF) et, à l'aide d'un ruban adhésif, bloquer la poignée du disjoncteur en position OFF.

Warnung Vor Ausführung der folgenden Vorgänge ist sicherzustellen, daß die Gleichstromschaltung keinen Strom erhält. Um sicherzustellen, daß sämtlicher Strom abgestellt ist, machen Sie auf der Schalttafel den Unterbrecher für die Gleichstromschaltung ausfindig, stellen Sie den Unterbrecher auf AUS, und kleben Sie den Schaltergriff des Unterbrechers mit Klebeband in der AUS-Stellung fest.

Avvertenza Prima di svolgere una qualsiasi delle procedure seguenti, verificare che il circuito CC non sia alimentato. Per verificare che tutta l'alimentazione sia scollegata (OFF), individuare l'interruttore automatico sul quadro strumenti che alimenta il circuito CC, mettere l'interruttore in posizione OFF e fissarlo con nastro adesivo in tale posizione.

Advarsel Før noen av disse prosedyrene utføres, kontroller at strømmen er frakoblet likestrømkretsen. Sørg for at all strøm er slått AV. Dette gjøres ved å lokalisere strømbryteren på brytertavlen som betjener likestrømkretsen, slå strømbryteren AV og teipe bryterhåndtaket på strømbryteren i AV-stilling.

Aviso Antes de executar um dos seguintes procedimentos, certifique-se que desligou a fonte de alimentação de energia do circuito de corrente contínua. Para se assegurar que toda a corrente foi DESLIGADA, localize o disjuntor no painel que serve o circuito de corrente contínua e coloque-o na posição OFF (Desligado), segurando nessa posição a manivela do interruptor do disjuntor com fita isoladora.

¡Atención! Antes de proceder con los siguientes pasos, comprobar que la alimentación del circuito de corriente continua (CC) esté cortada (OFF). Para asegurarse de que toda la alimentación esté cortada (OFF), localizar el interruptor automático en el panel que alimenta al circuito de corriente continua, cambiar el interruptor automático a la posición de Apagado (OFF), y sujetar con cinta la palanca del interruptor automático en posición de Apagado (OFF).

Varning! Innan du utför någon av följande procedurer måste du kontrollera att strömförsörjningen till likströmskretsen är bruten. Kontrollera att all strömförsörjning är BRUTEN genom att slå AV det överspänningsskydd som skyddar likströmskretsen och tejpa fast överspänningsskyddets omkopplare i FRÅN-läget.

DC Power Grounding Requirements and Warning

An insulated grounding conductor that is identical in size to the grounded and ungrounded branch circuit supply conductors but is identifiable by green and yellow stripes is installed as part of the branch circuit that supplies the device. The grounding conductor is a separately derived system at the supply transformer or motor generator set.



WARNING: When you install the device, the ground connection must always be made first and disconnected last.

Waarschuwing Bij de installatie van het toestel moet de aardverbinding altijd het eerste worden gemaakt en het laatste worden losgemaakt.

Varoitus Laitetta asennettaessa on maahan yhdistäminen aina tehtävä ensiksi ja maadoituksen irti kytkeminen viimeiseksi.

Avertissement Lors de l'installation de l'appareil, la mise à la terre doit toujours être connectée en premier et déconnectée en dernier.

Warnung Der Erdanschluß muß bei der Installation der Einheit immer zuerst hergestellt und zuletzt abgetrennt werden.

Avvertenza In fase di installazione dell'unità, eseguire sempre per primo il collegamento a massa e disconnetterlo per ultimo.

Advarsel Når enheten installeres, må jordledningen alltid tilkobles først og frakobles sist.

Aviso Ao instalar a unidade, a ligação à terra deverá ser sempre a primeira a ser ligada, e a última a ser desligada.

¡Atención! Al instalar el equipo, conectar la tierra la primera y desconectarla la última.

Varning! Vid installation av enheten måste jordledningen alltid anslutas först och kopplas bort sist.

DC Power Wiring Sequence Warning



WARNING: Wire the DC power supply using the appropriate lugs. When connecting power, the proper wiring sequence is ground to ground, +RTN to +RTN, then -48 V to -

48 V. When disconnecting power, the proper wiring sequence is -48 V to -48 V, +RTN to +RTN, then ground to ground. Note that the ground wire must always be connected first and disconnected last.

Waarschuwing De juiste bedradingsvolgorde verbonden is aarde naar aarde, +RTN naar +RTN, en -48 V naar -48 V. De juiste bedradingsvolgorde losgemaakt is en -48 naar -48 V, +RTN naar +RTN, aarde naar aarde.

Varoitus Oikea yhdistettävä kytkentäjäjestys on maajohto maajohtoon, +RTN varten +RTN, -48 V varten -48 V. Oikea irrotettava kytkentäjäjestys on -48 V varten -48 V, +RTN varten +RTN, maajohto maajohtoon.

Avertissement Câblez l'alimentation d'alimentation CC En utilisant les crochets appropriés à l'extrémité de câblage. En reliant la puissance, l'ordre approprié de câblage est rectifié pour rectifier, +RTN à +RTN, puis -48 V à -48 V. En débranchant la puissance, l'ordre approprié de câblage est -48 V à -48 V, +RTN à +RTN, a alors rectifié pour rectifier. Notez que le fil de masse devrait toujours être relié d'abord et débranché pour la dernière fois. Notez que le fil de masse devrait toujours être relié d'abord et débranché pour la dernière fois.

Warnung Die Stromzufuhr ist nur mit geeigneten Ringösen an das DC Netzteil anzuschliessen. Die richtige Anschlusssequenz ist: Erdanschluss zu Erdanschluss, +RTN zu +RTN und dann -48V zu -48V. Die richtige Sequenz zum Abtrennen der Stromversorgung ist -48V zu -48V, +RTN zu +RTN und dann Erdanschluss zu Erdanschluss. Es ist zu beachten dass der Erdanschluss immer zuerst angeschlossen und als letztes abgetrennt wird.

Avvertenza Mostra la morsettiera dell'alimentatore CC. Cablare l'alimentatore CC usando i connettori adatti all'estremità del cablaggio, come illustrato. La corretta sequenza di cablaggio è da massa a massa, da positivo a positivo (da linea ad L) e da negativo a negativo (da neutro a N). Tenere presente che il filo di massa deve sempre venire collegato per primo e scollegato per ultimo.

Advarsel Riktig tilkoples tilkopplingssekvens er jord til jord, +RTN til +RTN, -48 V til -48 V. Riktig frakoples tilkopplingssekvens er -48 V til -48 V, +RTN til +RTN, jord til jord.

Aviso Ate con alambre la fuente de potencia cc Usando los terminales apropiados en el extremo del cableado. Al conectar potencia, la secuencia apropiada del cableado se muele para moler, +RTN a +RTN, entonces -48 V a -48 V. Al desconectar potencia, la secuencia apropiada del cableado es -48 V a -48 V, +RTN a +RTN, entonces molíó para moler. Observe que el alambre de tierra se debe conectar siempre primero y desconectar por último. Observe que el alambre de tierra se debe conectar siempre primero y desconectar por último.

¡Atención! Wire a fonte de alimentação de DC Usando os talões apropriados na Extremidade da fiação. Ao conectar a potência, a sequência apropriada da fiação é moída para moer, +RTN a +RTN, então -48 V a -48 V. Ao desconectar a potência, a sequência apropriada da fiação é -48 V a -48 V, +RTN a +RTN, moeu então para moer. Anote que o fio à terra deve sempre ser conectado primeiramente e desconectado por último. Anote que o fio à terra deve sempre ser conectado primeiramente e desconectado por último.

Warning! Korrekt kopplingssekvens ar jord till jord, +RTN till +RTN, -48 V till -48 V. Korrekt kopplas kopplingssekvens ar -48 V till -48 V, +RTN till +RTN, jord till jord.

DC Power Wiring Terminations Warning



WARNING: When stranded wiring is required, use approved wiring terminations, such as closed-loop or spade-type with upturned lugs. These terminations must be the appropriate size for the wires and must clamp both the insulation and conductor.

Waarschuwing Wanneer geslagen bedrading vereist is, dient u bedrading te gebruiken die voorzien is van goedgekeurde aansluitingspunten, zoals het gesloten-lus type of het grijperschop type waarbij de aansluitpunten omhoog wijzen. Deze aansluitpunten dienen de juiste maat voor de draden te hebben en dienen zowel de isolatie als de geleider vast te klemmen.

Varoitus Jos säikeellinen johdin on tarpeen, käytä hyväksyttyä johdinliitääntä, esimerkiksi suljettua silmukkaa tai kourumaista liitääntä, jossa on ylöspäin käännetyt kiinnityskorvat. Tällaisten liitäntöjen tulee olla kooltaan johtimiin sopivia ja niiden tulee puristaa yhteen sekä eristeen että johdinosan.

Avertissement Quand des fils torsadés sont nécessaires, utiliser des douilles terminales homologuées telles que celles à circuit fermé ou du type à plage ouverte avec cosses rebroussées. Ces douilles terminales doivent être de la taille qui convient aux fils et doivent être refermées sur la gaine isolante et sur le conducteur.

Warnung Wenn Litzenverdrahtung erforderlich ist, sind zugelassene Verdrahtungsabschlüsse, z.B. für einen geschlossenen Regelkreis oder gabelförmig, mit nach oben gerichteten Kabelschuhen zu verwenden. Diese Abschlüsse sollten die angemessene Größe für die Drähte haben und sowohl die Isolierung als auch den Leiter festklemmen.

Avvertenza Quando occorre usare trecce, usare connettori omologati, come quelli a occhio o a forcella con linguette rivolte verso l'alto. I connettori devono avere la misura adatta per il cablaggio e devono serrare sia l'isolante che il conduttore.

Advarsel Hvis det er nødvendig med flertrådede ledninger, brukes godkjente ledningsavslutninger, som for eksempel lukket sløyfe eller spadetype med oppoverbøyde kabelsko. Disse avslutningene skal ha riktig størrelse i forhold til ledningene, og skal klemme sammen både isolasjonen og ledaren.

Aviso Quando forem requeridas montagens de instalação eléctrica de cabo torcido, use terminações de cabo aprovadas, tais como, terminações de cabo em circuito fechado e planas com terminais de orelha voltados para cima. Estas terminações de cabo deverão ser do tamanho apropriado para os respectivos cabos, e deverão prender simultaneamente o isolamento e o fio condutor.

¡Atención! Cuando se necesite hilo trenzado, utilizar terminales para cables homologados, tales como las de tipo "bucle cerrado" o "espada", con las lengüetas de conexión vueltas hacia arriba. Estos terminales deberán ser del tamaño apropiado para los cables que se utilicen, y tendrán que sujetar tanto el aislante como el conductor.

Varning! När flertrådiga ledningar krävs måste godkända ledningskontakter användas, t.ex. kabelsko av sluten eller öppen typ med uppåtvänd tapp. Storleken på dessa kontakter måste vara avpassad till ledningarna och måste kunna hålla både isoleringen och ledaren fastklämda.

Multiple Power Supplies Disconnection Warning



WARNING: The network device has more than one power supply connection. All connections must be removed completely to remove power from the unit completely.

Waarschuwing Deze eenheid heeft meer dan één stroomtoevoerverbinding; alle verbindingen moeten volledig worden verwijderd om de stroom van deze eenheid volledig te verwijderen.

Varoitus Tässä laitteessa on useampia virtalähdekytkentöjä. Kaikki kytkennät on irrotettava kokonaan, jotta virta poistettaisiin täysin laitteesta.

Avertissement Cette unité est équipée de plusieurs raccordements d'alimentation. Pour supprimer tout courant électrique de l'unité, tous les cordons d'alimentation doivent être débranchés.

Warnung Diese Einheit verfügt über mehr als einen Stromanschluß; um Strom gänzlich von der Einheit fernzuhalten, müssen alle Stromzufuhren abgetrennt sein.

Avvertenza Questa unità ha più di una connessione per alimentatore elettrico; tutte le connessioni devono essere completamente rimosse per togliere l'elettricità dall'unità.

Advarsel Denne enheten har mer enn én strømtilkobling. Alle tilkoblinger må kobles helt fra for å eliminere strøm fra enheten.

Aviso Este dispositivo possui mais do que uma conexão de fonte de alimentação de energia; para poder remover a fonte de alimentação de energia, deverão ser desconectadas todas as conexões existentes.

¡Atención! Esta unidad tiene más de una conexión de suministros de alimentación; para eliminar la alimentación por completo, deben desconectarse completamente todas las conexiones.

Warning! Denna enhet har mer än en strömförsörjningsanslutning; alla anslutningar måste vara helt avlägsnade innan strömtillförseln till enheten är fullständigt bruten.

TN Power Warning



WARNING: The device is designed to work with a TN power system.

Waarschuwing Het apparaat is ontworpen om te functioneren met TN energiesystemen.

Varoitus Kojе on suunniteltu toimimaan TN-sähkövoimajärjestelmien yhteydessä.

Avertissement Ce dispositif a été conçu pour fonctionner avec des systèmes d'alimentation TN.

Warnung Das Gerät ist für die Verwendung mit TN-Stromsystemen ausgelegt.

Avvertenza Il dispositivo è stato progettato per l'uso con sistemi di alimentazione TN.

Advarsel Utstyret er utfomet til bruk med TN-strømsystemer.

Aviso O dispositivo foi criado para operar com sistemas de corrente TN.

¡Atención! El equipo está diseñado para trabajar con sistemas de alimentación tipo TN.

Varning! Enheten är konstruerad för användning tillsammans med elkraftssystem av TN-typ.

Agency Approvals for the JSA3800 Appliance

IN THIS SECTION

- [Compliance Statement for Argentina | 88](#)

JSA3800 comply with the following standards:

- Safety
 - CAN/CSA-C22.2 No. 60950-1 (2007) Information Technology Equipment - Safety
 - UL 60950-1 (2nd Ed.) Information Technology Equipment - Safety
 - EN 60950-1 (2006+A1:2009+A12:2010) Information Technology Equipment - Safety
 - IEC 60950-1 (2005+A1:2009) Information Technology Equipment - Safety (All country deviations)
 - EN 60825-1 (2007) Safety of Laser Products - Part 1: Equipment classification and requirements
- EMC
 - FCC 47CFR , Part 15 Class A (2009) USA Radiated Emissions
 - EN 55022 2006+A1:2007 European Radiated Emissions
 - ICES-003 Issue 4, Feb 2004 Canada Radiated Emissions
 - VCCI-V-3/2013.04 and V-4/2012.04 Japanese Radiated Emissions
 - AS/NZS CISPR22:2009
 - CISPR 24:1997/A1:2001/A2:2002 IT Equipment Immunity Characteristics

- EN 55024:1998/A1:2001/A2:2003 Information Technology Equipment Immunity Characteristics
- EN 300 386 V1.6.1 Telecom Network Equipment - EMC requirements
- BSMI CNS 13438 and NCC C6357 Taiwan Radiated Emissions
- Environmental
 - Reduction of Hazardous Substances (ROHS) 6

Compliance Statement for Argentina

EQUIPO DE USO IDÓNEO.

RELATED DOCUMENTATION

[Compliance Statements for EMC Requirements for the JSA3800 Appliance](#)

[Compliance Statements for Acoustic Noise for the JSA3800 Appliance | 91](#)

[Installation Instructions Warning | 59](#)

Compliance Statements for EMC Requirements for the JSA3800 Appliance

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- [United States | 90](#)
- [FCC Part 15 Statement | 91](#)

This topic describes the EMC requirements for the JSA3800 appliance:

Canada

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. Industry Canada does not guarantee the equipment will operate to the users' satisfaction.

Before installing this equipment, users should ensure that it is permissible to connect the equipment to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the inside wiring associated with a single line individual service can be extended by means of a certified connector assembly. The customer should be aware that compliance with the above conditions might not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, might give the telecommunications company cause to request the user to disconnect the equipment.



CAUTION: Users should not attempt to make electrical ground connections by themselves, but should contact the appropriate inspection authority or an electrician, as appropriate.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution might be particularly important in rural areas.

European Community

This is a Class A device. In a domestic environment this device might cause radio interference, in which case the user needs to take adequate measures.

Japan

この装置は、クラス A 情報技術装置です。この装置を家庭環境で使用する
と電波妨害を引き起こすことがあります。この場合には使用者が適切な対策
を講ずるよう要求されることがあります。 VCCI-A

The preceding translates as follows:

This is a Class A device. In a domestic environment this device might cause radio interference, in which case the user needs to take adequate measures.

VCCI-A

Korea

이 기기는 업무용(A급) 전자파적합기기로서 판
매자 또는 사용자는 이 점을 주의하시기 바라
며, 가정외의 지역에서 사용하는 것을 목적으로
합니다.

Korean Class A Warning

g040913

The preceding translates as follows:

This equipment is Industrial (Class A) electromagnetic wave suitability equipment and seller or user should take notice of it, and this equipment is to be used in the places except for home

United States

The device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, might cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users need to correct the interference at their own expense.

FCC Part 15 Statement

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, might cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.

RELATED DOCUMENTATION

[Compliance Statements for Acoustic Noise for the JSA3800 Appliance | 91](#)

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Compliance Statements for Acoustic Noise for the JSA3800 Appliance

Maschinenlärminformations-Verordnung - 3. GPSGV, der höchste Schalldruckpegel beträgt 70 dB(A) oder weniger gemäss EN ISO 7779

Translation:

The emitted sound pressure is below 70 dB(A) per EN ISO 7779.

RELATED DOCUMENTATION

[Compliance Statements for EMC Requirements for the JSA3800 Appliance](#)

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